

WINTER WHEAT

AEROBIC

CHARACTERS IN DETAIL

Ear

| | |
|--|----------------|
| Colour: | white |
| Length: | medium to long |
| Density: | dense |
| Shape (side profile) | parallel sided |
| Awns or scurs - presence: | awns present |
| Awns or scurs - distribution: | |
| Awns or Scurs - length: | very long |
| Apical rachis segment - convex face hairiness: | weak |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|-------------------------------|
| External surface roughness: | |
| Extent of internal hairs: | weak to medium - group 1 to 2 |
| Beak length: | medium to long |
| Beak shape (curvature): | slightly curved |
| Shoulder | narrow |
| Shoulder | slightly sloping |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|--------|
| Colour | red |
| Colouration with phenol: | medium |

Straw

| | |
|-----------------------------------|------------|
| Length: | short |
| Wall thickness @ 20cms below ear: | very thick |

Glaucosity

| | |
|---------------------------------|---------------------|
| Flag leaf - sheath: | weak to medium |
| Flag leaf - blade (lower side): | very weak to weak |
| Culm neck: | weak |
| Ear - Glaucosity: | absent or very weak |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | absent or very weak |
| Plant - growth habit: | semi-prostrate |
| Time ear emergence: | early |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/1564

ALCHEMY

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------------|
| Colour | red |
| Colouration with phenol | light to medium |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late to very late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

ARARAT**CHARACTERS IN DETAIL****Ear**

| | |
|--|-------------------|
| Colour: | white |
| Length: | medium to long |
| Density: | lax |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness: | very weak to weak |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|-------------------|
| External surface roughness: | |
| Extent of internal hairs: | medium - group 2 |
| Beak length: | medium |
| Beak shape (curvature): | moderately curved |
| Shoulder | medium |
| Shoulder | elevated |

Lower Lemma

| | |
|-------------|-----------------|
| Beak shape: | slightly curved |
|-------------|-----------------|

Grain

| | |
|--------------------------|--------|
| Colour | red |
| Colouration with phenol: | medium |

Straw

| | |
|-----------------------------------|--------|
| Length: | medium |
| Wall thickness @ 20cms below ear: | thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | medium to strong |
| Flag leaf - blade (lower side): | medium to strong |
| Culm neck: | strong |
| Ear - Glaucosity: | strong to very strong |

Plant growth characters

| | |
|--|--------------------------------|
| Coleoptile-anthocyanin | medium |
| Plant - growth habit: | intermediate to semi-prostrate |
| Time ear emergence: | medium |
| Flag leaf - Anthocyanin colouration of auricles: | absent or very weak |

WINTER WHEAT

AFP 1/2016

AVATAR

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1599

BATTALION

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium to long |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|-----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | early to medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

BELENUS

CHARACTERS IN DETAIL

Ear

| | |
|--|----------------|
| Colour: | coloured |
| Length: | short |
| Density: | medium |
| Shape (side profile) | parallel sided |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness: | weak |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|------------------|
| External surface roughness: | |
| Extent of internal hairs: | weak - group 1 |
| Beak length: | very short |
| Beak shape (curvature): | slightly curved |
| Shoulder | narrow |
| Shoulder | slightly sloping |

Lower Lemma

| | |
|-------------|-----------------|
| Beak shape: | slightly curved |
|-------------|-----------------|

Grain

| | |
|--------------------------|--------|
| Colour | red |
| Colouration with phenol: | medium |

Straw

| | |
|-----------------------------------|-----------|
| Length: | short |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|---------------------|
| Flag leaf - sheath: | weak |
| Flag leaf - blade (lower side): | absent or very weak |
| Culm neck: | absent or very weak |
| Ear - Glaucosity: | absent or very weak |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | absent or very weak |
| Plant - growth habit: | intermediate |
| Time ear emergence: | medium to late |
| Flag leaf - Anthocyanin colouration of auricles: | absent or very weak |

WINTER WHEAT

BELEPI

CHARACTERS IN DETAIL

Ear

| | |
|--|-------------------|
| Colour: | white |
| Length: | long to very long |
| Density: | medium |
| Shape (side profile) | parallel |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness: | weak |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|------------------|
| External surface roughness: | |
| Extent of internal hairs: | strong - group 3 |
| Beak length: | |
| Beak shape (curvature): | |
| Shoulder | straight |
| Shoulder | |

Lower Lemma

| | |
|-------------|-----------------------------|
| Beak shape: | straight to slightly curved |
|-------------|-----------------------------|

Grain

| | |
|--------------------------|-------------------|
| Colour | red |
| Colouration with phenol: | dark to very dark |

Straw

| | |
|-----------------------------------|--------|
| Length: | medium |
| Wall thickness @ 20cms below ear: | thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong to very strong |
| Flag leaf - blade (lower side): | strong to very strong |
| Culm neck: | strong to very strong |
| Ear - Glaucosity: | strong to very strong |

Plant growth characters

| | |
|--|--------------------------------|
| Coleoptile-anthocyanin | weak |
| Plant - growth habit: | intermediate to semi-prostrate |
| Time ear emergence: | medium |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/1885

BELUGA

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|------------|
| Length | very short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1227

BISCAY

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | lax |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-----------------|
| Colour | red |
| Colouration with phenol | light to medium |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong to very strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | very weak |

WINTER WHEAT

BOOMER

CHARACTERS IN DETAIL

Ear

| | |
|--|---------------|
| Colour: | white |
| Length: | medium |
| Density: | medium |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness: | medium |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|-------------------|
| External surface roughness: | |
| Extent of internal hairs: | strong -group 3 |
| Beak length: | short |
| Beak shape (curvature): | moderately curved |
| Shoulder | narrow |
| Shoulder | elevated |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|------|
| Colour | red |
| Colouration with phenol: | dark |

Straw

| | |
|-----------------------------------|-----------|
| Length: | short |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|------------------|
| Flag leaf - sheath: | strong |
| Flag leaf - blade (lower side): | strong |
| Culm neck: | strong |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|----------------|
| Coleoptile-anthocyanin | strong |
| Plant - growth habit: | semi-prostrate |
| Time ear emergence: | medium |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/1502

BROMPTON

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

BYSTRA

CHARACTERS IN DETAIL

Ear

| | |
|--|-----------------|
| Colour: | white |
| Length: | short to medium |
| Density: | medium to dense |
| Shape (side profile) | parallel sided |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness: | strong |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|------------------|
| External surface roughness: | |
| Extent of internal hairs: | weak - group 1 |
| Beak length: | very short |
| Beak shape (curvature): | slightly curved |
| Shoulder | narrow |
| Shoulder | slightly sloping |

Lower Lemma

| | |
|-------------|-----------------|
| Beak shape: | slightly curved |
|-------------|-----------------|

Grain

| | |
|--------------------------|-----------------|
| Colour | red |
| Colouration with phenol: | light to medium |

Straw

| | |
|-----------------------------------|-------|
| Length: | short |
| Wall thickness @ 20cms below ear: | thin |

Glaucosity

| | |
|---------------------------------|------------------|
| Flag leaf - sheath: | strong |
| Flag leaf - blade (lower side): | strong |
| Culm neck: | strong |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | weak |
| Plant - growth habit: | semi-erect |
| Time ear emergence: | medium to late |
| Flag leaf - Anthocyanin colouration of auricles: | absent or very weak |

WINTER WHEAT

AFP 1/2160

CAMBRIDGE

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short to medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1798

CASSIUS

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium to long |
| Beak curvature | moderate to strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | late to very late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1980

CHILTON

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | tip only |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium to long |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

CHRONICLE**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|--------------------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium to long |
| Beak curvature | slightly curved |
| Shoulder width | very narrow to narrow |
| Shoulder shape | strongly elevated with 2nd pt. |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1070

CLAIRE

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | lax |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|----------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | straight to elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong to very strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

COCOON**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | medium |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | strong - Group 3 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong to very strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1813

CONQUEROR

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderate to strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

CONSORT**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short to medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

CORDIALE**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|----------------|
| Length | medium to long |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

CORONATION**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium to long |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium to strong - Group 2+ |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

COUGAR**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | short |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | strong to very strong |
| Culm - neck | strong to very strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

CRUSOE

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | medium |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium to strong - Group 2+ |
| Beak length | short to medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium to broad |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|---------------------|
| Flag leaf - sheath | absent or very weak |
| Flag leaf- blade (lower side) | absent or very weak |
| Culm - neck | absent or very weak |
| Ear | absent or very weak |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

CUBANITA**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1220

DEBEN

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | lax |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | short to medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

AFP 1/2023

DELPHI

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium to strong - Group 2+ |
| Beak length | medium to long |
| Beak curvature | moderate to strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1895

DENMAN

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium to dense |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

DEXTER**CHARACTERS IN DETAIL****Ear**

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | medium to long |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|------------|
| Beak curvature | geniculate |
|----------------|------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | medium |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2031

DICKENS

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong to very strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1725

DUXFORD

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|--------------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | strongly elevated with 2nd pt. |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------------|
| Colour | red |
| Colouration with phenol | light to medium |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | weak |
| Culm - neck | medium |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|-----------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect |
| Time of ear emergence | early to medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

EDGAR

CHARACTERS IN DETAIL

Ear

| | |
|--|----------------|
| Colour: | white |
| Length: | long |
| Density: | lax |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness: | weak to medium |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|----------------------|
| External surface roughness: | |
| Extent of internal hairs: | weak - group 1 |
| Beak length: | very short to short |
| Beak shape (curvature): | strongly curved |
| Shoulder | narrow |
| Shoulder | straight to elevated |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|------|
| Colour | red |
| Colouration with phenol: | dark |

Straw

| | |
|-----------------------------------|-----------|
| Length: | medium |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong |
| Flag leaf - blade (lower side): | strong |
| Culm neck: | strong to very strong |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|-------------------|
| Coleoptile-anthocyanin | very weak to weak |
| Plant - growth habit: | intermediate |
| Time ear emergence: | medium to late |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/1376

EINSTEIN

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | medium |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | medium to strong |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | semi-erect |
| Time of ear emergence | early to medium |
| Flag leaf - anthocyanin of auricles | absent or very weak |

ENERGISE**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/2 |
| Awns or scurs - length | long to very long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium |
| Beak length | medium |
| Beak curvature | moderate to strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

EVOLUTION**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | strongly curved to geniculate |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | medium |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1213

EXSEPT

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium to long |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | tip only |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-prostrate |
| Time of ear emergence | late to very late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

FLORETT

CHARACTERS IN DETAIL

Ear

| | |
|--|-----------------|
| Colour: | white |
| Length: | short to medium |
| Density: | medium to dense |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness: | medium |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|-------------------------------|
| External surface roughness: | |
| Extent of internal hairs: | weak to medium - group 1 to 2 |
| Beak length: | very short to short |
| Beak shape (curvature): | moderately curved |
| Shoulder | narrow |
| Shoulder | slightly sloping to straight |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|------|
| Colour | red |
| Colouration with phenol: | dark |

Straw

| | |
|-----------------------------------|-----------|
| Length: | short |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|------------------|
| Flag leaf - sheath: | strong |
| Flag leaf - blade (lower side): | weak to medium |
| Culm neck: | medium to strong |
| Ear - Glaucosity: | medium |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | absent or very weak |
| Plant - growth habit: | intermediate |
| Time ear emergence: | medium |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/1769

GALLANT

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------------------|
| Beak curvature | straight to slightly curved |
|----------------|-----------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1442

GLADIATOR

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|----------------------|
| External surface | |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | straight to elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------------|
| Colour | red |
| Colouration with phenol | light to medium |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong to very strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | early |
| Flag leaf - anthocyanin of auricles | absent or very weak |

GLASGOW**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | short to medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | very early to early |
| Flag leaf - anthocyanin of auricles | absent or very weak |

GOLDENGUN**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/2 |
| Awns or scurs - length | medium to long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elev. to elev with 2nd point |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | strong to very strong |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1811

GRAFTON

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short to medium |
| Beak curvature | moderate to strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|--------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1940

GRAVITAS

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

HAMPDEN**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 3/4 |
| Awns or scurs - length | long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium |
| Beak length | medium to long |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|--------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2085

HAVANA

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short to medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

HEREFORD**CHARACTERS IN DETAIL****Ear**

| | |
|--|-------------------|
| Colour: | white |
| Length: | short to medium |
| Density: | medium to dense |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or Scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness: | strong |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|------------------|
| External surface roughness: | |
| Extent of internal hairs: | strong - group 3 |
| Beak length: | medium |
| Beak shape (curvature): | strongly curved |
| Shoulder | medium |
| Shoulder | elevated |

Lower Lemma

| | |
|-------------|-----------------|
| Beak shape: | strongly curved |
|-------------|-----------------|

Grain

| | |
|--------------------------|----------------|
| Colour | red |
| Colouration with phenol: | medium to dark |

Straw

| | |
|-----------------------------------|--------|
| Length: | medium |
| Wall thickness @ 20cms below ear: | thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong |
| Flag leaf - blade (lower side): | strong to very strong |
| Culm neck: | strong |
| Ear - Glaucosity: | strong |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | absent or very weak |
| Plant - growth habit: | intermediate |
| Time ear emergence: | medium to late |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/736

HEREWARD

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | very short to short |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------------------|
| External surface | entire external surface rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | broad to very broad |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

HEROLDO

CHARACTERS IN DETAIL

Ear

| | |
|--|----------------|
| Colour: | white |
| Length: | medium to long |
| Density: | medium |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness: | medium |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|----------------------|
| External surface roughness: | |
| Extent of internal hairs: | strong - group 3 |
| Beak length: | short to medium |
| Beak shape (curvature): | straight |
| Shoulder | narrow |
| Shoulder | straight to elevated |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|-----------------|
| Colour | white |
| Colouration with phenol: | light to medium |

Straw

| | |
|-----------------------------------|-----------------|
| Length: | short to medium |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong to very strong |
| Flag leaf - blade (lower side): | strong to very strong |
| Culm neck: | strong to very strong |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | absent or very weak |
| Plant - growth habit: | semi-prostrate |
| Time ear emergence: | medium to late |
| Flag leaf - Anthocyanin colouration of auricles: | |

HORATIO**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper 1/2 |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium to long |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

HUMBER**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | medium to broad |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | early to medium |
| Flag leaf - anthocyanin of auricles | |

ICEBREAKER**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|----------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | medium |
| Shoulder shape | straight to elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2129

ICON

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium to long |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1853

INVICTA

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | tip only |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1388

ISTABRAQ

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect |
| Time of ear emergence | very early to early |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

AFP 1/1737

JB DIEGO

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | tip only |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

JORVIK**CHARACTERS IN DETAIL****Ear**

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/2 |
| Awns or scurs - length | long |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------|
| External surface | smooth |
| Extent of internal hairs | medium |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|------------|
| Beak curvature | geniculate |
|----------------|------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | medium |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late to very late |
| Flag leaf - anthocyanin of auricles | |

KETCHUM**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|----------------|
| Length | medium to long |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

KINGDOM**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | tip only |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|----------------|
| Length | medium to long |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1578

KIPLING

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | dense to very dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------------|
| Colour | red |
| Colouration with phenol | light to medium |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | medium |
| Flag leaf- blade (lower side) | |
| Culm - neck | medium |
| Ear | weak |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

KRIS

CHARACTERS IN DETAIL

Ear

| | |
|--|-----------------|
| Colour: | white |
| Length: | short to medium |
| Density: | medium |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness: | medium |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|----------------------|
| External surface roughness: | |
| Extent of internal hairs: | strong - group 3 |
| Beak length: | short to medium |
| Beak shape (curvature): | slightly curved |
| Shoulder | medium |
| Shoulder | straight to elevated |

Lower Lemma

| | |
|-------------|-----------------|
| Beak shape: | slightly curved |
|-------------|-----------------|

Grain

| | |
|--------------------------|----------------|
| Colour | red |
| Colouration with phenol: | medium to dark |

Straw

| | |
|-----------------------------------|-----------|
| Length: | short |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong to very strong |
| Flag leaf - blade (lower side): | medium to strong |
| Culm neck: | strong |
| Ear - Glaucosity: | strong |

Plant growth characters

| | |
|--|-----------------------------|
| Coleoptile-anthocyanin | medium to strong |
| Plant - growth habit: | semi-prostrate to prostrate |
| Time ear emergence: | late |
| Flag leaf - Anthocyanin colouration of auricles: | absent or very weak |

WINTER WHEAT

AFP 1/2115

KWS BONHAM

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | weak to medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

KWS CASHEL**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium to dense |
| Shape-side profile | tapering |
| Awns or scurs - presence | awns present |
| Awns or scurs - distribution | whole length |
| Awns or scurs - length | very long |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | strong |
| Beak length | medium to long |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|-------------------|
| Flag leaf - sheath | weak |
| Flag leaf- blade (lower side) | very weak to weak |
| Culm - neck | weak |
| Ear | weak |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2080

KWS CHILOE

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | awns present |
| Awns of scurs - distribution | whole length |
| Awns or scurs - length: | very long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | long to very long |
| Beak curvature | slightly curved |
| Shoulder width | very narrow to narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|---------------------|
| Colour | red |
| Colouration with phenol | very light to light |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

KWS CLEVELAND**CHARACTERS IN DETAIL****Ear**

| | |
|---|------------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

KWS CROFT**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong to very strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1976

KWS CROSBY

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium to long |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong to very strong |
| Ear | strong to very strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2114

KWS DALI

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | weak to medium |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2120

KWS EVOKE

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

KWS EVOLVE**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | long |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | medium |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1977

KWS GATOR

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|----------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | straight to elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1882

KWS HORIZON

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucoisity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2116

KWS KENTON

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | weak to medium |
| Culm - neck | weak to medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

KWS KIELDER**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium to long |
| Beak curvature | slightly curved |
| Shoulder width | very narrow to narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | semi-prostrate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

KWS LILI**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------|
| External surface | slightly rough |
| Extent of internal hairs | medium |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1972

KWS LUMOS

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short to medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1908

KWS MADRYN

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

KWS MOJITO**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | medium to long |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 3/4 |
| Awns or scurs - length | long to very long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|----------------|
| Flag leaf - sheath | medium |
| Flag leaf- blade (lower side) | weak to medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

KWS MOZART**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/2 |
| Awns or scurs - length | short to medium |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium |
| Beak length | medium |
| Beak curvature | moderate to strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late to very late |
| Flag leaf - anthocyanin of auricles | |

KWS PODIUM**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | strong to very strong |

Plant growth characters

| | |
|--------------------------------------|------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2078

KWS ROWAN

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ½ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|--------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1916

KWS SANTIAGO

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1971

KWS SAXTEAD

CHARACTERS IN DETAIL

Ear

| | |
|---|--------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | awns present |
| Awns of scurs - distribution | whole length |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | slightly rough |
| Extent of internal hairs | strong - Group 3 |
| Beak length | long |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong to very strong |
| Ear | strong to very strong |

Plant growth characters

| | |
|--------------------------------------|------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1975

KWS SOLO

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium to long |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1880

KWS STERLING

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns of scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | very narrow to narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1911

KWS TARGET

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

KWS TEMPO**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | medium to long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------|
| External surface | rough |
| Extent of internal hairs | weak to medium |
| Beak length | short to medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|------------|
| Beak curvature | geniculate |
|----------------|------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | very late |
| Flag leaf - anthocyanin of auricles | |

KWS TRINITY**CHARACTERS IN DETAIL****Ear**

| | |
|---|---------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/2 |
| Awns or scurs - length | medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2082

KWS YARIS

CHARACTERS IN DETAIL

Ear

| | |
|--|------------------|
| Colour: | white |
| Length: | medium to long |
| Density: | medium |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness: | medium to strong |
| Anthers - anthocyanin colouration | |

Lower Glume

| | |
|-----------------------------|------------------|
| External surface roughness: | |
| Extent of internal hairs: | strong - group 3 |
| Beak length: | long |
| Beak shape (curvature): | strongly curved |
| Shoulder | medium |
| Shoulder | elevated |

Lower Lemma

| | |
|-------------|-----------------|
| Beak shape: | strongly curved |
|-------------|-----------------|

Grain

| | |
|--------------------------|----------------|
| Colour | red |
| Colouration with phenol: | medium to dark |

Straw

| | |
|-----------------------------------|-----------|
| Length: | medium |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong to very strong |
| Flag leaf - blade (lower side): | very strong |
| Culm neck: | strong to very strong |
| Ear - Glaucosity: | strong to very strong |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | absent or very weak |
| Plant - growth habit: | semi-prostrate |
| Time ear emergence: | late |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/2113

LANCASTER

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium to long |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | weak to medium |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1790

LEAR

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|----------------|
| Length | medium to long |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late to very late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2081

LEEDS

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium to long |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ½ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

MAGISTER

CHARACTERS IN DETAIL

Ear

| | |
|--|-----------------|
| Colour: | white |
| Length: | medium |
| Density: | lax to medium |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness: | medium |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|------------------------------|
| External surface roughness: | |
| Extent of internal hairs: | weak to medium -group 1 to 2 |
| Beak length: | short |
| Beak shape (curvature): | moderately curved |
| Shoulder | medium to broad |
| Shoulder | straight |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|------|
| Colour | red |
| Colouration with phenol: | dark |

Straw

| | |
|-----------------------------------|----------------|
| Length: | medium to long |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|------------------|
| Flag leaf - sheath: | strong |
| Flag leaf - blade (lower side): | strong |
| Culm neck: | strong |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|----------------|
| Coleoptile-anthocyanin | weak |
| Plant - growth habit: | semi-prostrate |
| Time ear emergence: | medium to late |
| Flag leaf - Anthocyanin colouration of auricles: | |

MARIS WIDGEON**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | very lax to lax |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | weak - Group 1 |
| Beak length | medium |
| Beak curvature | v.slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-----------|
| Length | very long |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | medium |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|--------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | weak |

WINTER WHEAT

AFP 1/2022

MONTEREY

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

MYRIAD**CHARACTERS IN DETAIL****Ear**

| | |
|---|---------------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1192

NELSON

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------|
| Colour | white |
| Length | medium |
| Density | lax |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ½ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong |
| Ear | strong to very strong |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

AFP 1/1658

OAKLEY

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium to strong - Group 2+ |
| Beak length | medium to long |
| Beak curvature | moderate to strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

OLIVIN

CHARACTERS IN DETAIL

Ear

| | |
|--|------------------|
| Colour: | white |
| Length: | medium |
| Density: | medium |
| Shape (side profile) | parallel sided |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness: | medium to strong |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|------------------------------|
| External surface roughness: | |
| Extent of internal hairs: | medium - group 2 |
| Beak length: | very short to short |
| Beak shape (curvature): | strongly curved |
| Shoulder | narrow to medium |
| Shoulder | slightly sloping to straight |

Lower Lemma

| | |
|-------------|-------------------------------|
| Beak shape: | strongly curved to geniculate |
|-------------|-------------------------------|

Grain

| | |
|--------------------------|----------------|
| Colour | red |
| Colouration with phenol: | medium to dark |

Straw

| | |
|-----------------------------------|----------------|
| Length: | medium to long |
| Wall thickness @ 20cms below ear: | thin |

Glaucosity

| | |
|---------------------------------|------------------|
| Flag leaf - sheath: | strong |
| Flag leaf - blade (lower side): | medium |
| Culm neck: | medium |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|--------------------------------|
| Coleoptile-anthocyanin | strong to very strong |
| Plant - growth habit: | intermediate to semi-prostrate |
| Time ear emergence: | late |
| Flag leaf - Anthocyanin colouration of auricles: | absent or very weak |

PANACEA**CHARACTERS IN DETAIL****Ear**

| | |
|---|---------------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

PANORAMA**CHARACTERS IN DETAIL****Ear**

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | short to medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | weak to medium |
| Culm - neck | medium |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

PHILOSOPHER**CHARACTERS IN DETAIL****Ear**

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow |
| Shoulder shape | straight to elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

PIRENEO

CHARACTERS IN DETAIL

Ear

| | |
|--|-----------------|
| Colour: | white |
| Length: | medium |
| Density: | medium to dense |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | awns present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness: | medium |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|-------------------|
| External surface roughness: | |
| Extent of internal hairs: | medium - group 2 |
| Beak length: | long to very long |
| Beak shape (curvature): | slightly curved |
| Shoulder | narrow |
| Shoulder | straight |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|--------|
| Colour | red |
| Colouration with phenol: | medium |

Straw

| | |
|-----------------------------------|--------|
| Length: | medium |
| Wall thickness @ 20cms below ear: | thin |

Glaucosity

| | |
|---------------------------------|-------------------|
| Flag leaf - sheath: | weak |
| Flag leaf - blade (lower side): | very weak to weak |
| Culm neck: | weak to medium |
| Ear - Glaucosity: | weak |

Plant growth characters

| | |
|--|---------------|
| Coleoptile-anthocyanin | |
| Plant - growth habit: | intermediate |
| Time ear emergence: | early to late |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/2033

QI

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ¼ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | absent or very weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium to strong - Group 2+ |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | medium |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

RA3W 08

CHARACTERS IN DETAIL

Ear

| | |
|--|-----------------|
| Colour: | white |
| Length: | short to medium |
| Density: | medium to dense |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness: | weak to medium |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|-------------------|
| External surface roughness: | medium |
| Extent of internal hairs: | medium - group 2 |
| Beak length: | medium |
| Beak shape (curvature): | moderately curved |
| Shoulder | broad |
| Shoulder | elevated |

Lower Lemma

| | |
|-------------|--------------------------------------|
| Beak shape: | moderately curved to strongly curved |
|-------------|--------------------------------------|

Grain

| | |
|--------------------------|----------------|
| Colour | red |
| Colouration with phenol: | medium to dark |

Straw

| | |
|-----------------------------------|-----------------|
| Length: | short to medium |
| Wall thickness @ 20cms below ear: | thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong to very strong |
| Flag leaf - blade (lower side): | medium to strong |
| Culm neck: | weak |
| Ear - Glaucosity: | medium |

Plant growth characters

| | |
|--|--------------|
| Coleoptile-anthocyanin | medium |
| Plant - growth habit: | intermediate |
| Time ear emergence: | medium |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

RAPSODIA

CHARACTERS IN DETAIL

Ear

| | |
|--|-----------------|
| Colour: | white |
| Length: | short to medium |
| Density: | medium |
| Shape (side profile) | tapering |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | short |
| Apical rachis segment - convex face hairiness: | weak to medium |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|---------------------------------|
| External surface roughness: | smooth |
| Extent of internal hairs: | medium to strong - group 2 to 3 |
| Beak length: | short |
| Beak shape (curvature): | moderately curved |
| Shoulder | medium |
| Shoulder | straight |

Lower Lemma

| | |
|-------------|-----------------|
| Beak shape: | slightly curved |
|-------------|-----------------|

Grain

| | |
|--------------------------|--------|
| Colour | red |
| Colouration with phenol: | medium |

Straw

| | |
|-----------------------------------|-------------------|
| Length: | short |
| Wall thickness @ 20cms below ear: | very thin to thin |

Glaucosity

| | |
|---------------------------------|-----------------------|
| Flag leaf - sheath: | strong to very strong |
| Flag leaf - blade (lower side): | medium to strong |
| Culm neck: | medium to strong |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|-----------------------------|
| Coleoptile-anthocyanin | strong |
| Plant - growth habit: | semi-prostrate to prostrate |
| Time ear emergence: | medium |
| Flag leaf - Anthocyanin colouration of auricles: | absent or very weak |

WINTER WHEAT

AFP 1/1994

RAZZANO

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | medium to long |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs – distribution | |
| Awns or scurs - length: | very short |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | |
| Extent of internal hairs | medium to strong - Group 2+ |
| Beak length | short |
| Beak curvature | v.slightly curved |
| Shoulder width | narrow |
| Shoulder shape | straight to elevated |

Lower lemma

Beak curvature

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

REFLECTION**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 3/4 |
| Awns or scurs - length | medium |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | strong |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

RELAY**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ½ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong to very strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

REVELATION**CHARACTERS IN DETAIL****Ear**

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ¼ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

RGT CONVERSION**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/2 |
| Awns or scurs - length | long to very long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------|
| External surface | smooth |
| Extent of internal hairs | medium |
| Beak length | long |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

ROBIGUS**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ¼ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | short to medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|--------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | weak |

WINTER WHEAT

AFP 1/2249

RUSKIN

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | long |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium |
| Beak length | short to medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

RW41138**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 3/4 |
| Awns or scurs - length | long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------|
| External surface | smooth |
| Extent of internal hairs | strong |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | short |
| Wall thickness @20cms below ear | absent or very thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1649

SAHARA

CHARACTERS IN DETAIL

Ear

| | |
|---|-----------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ½ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderate to strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|----------------|
| Length | medium to long |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|----------------|
| Flag leaf - sheath | medium |
| Flag leaf- blade (lower side) | weak |
| Culm - neck | weak |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late to very late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1787

SCOUT

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------------------|
| Beak curvature | straight to slightly curved |
|----------------|-----------------------------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2068

SCRIBE

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2138

SKYFALL

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | awns present |
| Awns or scurs - distribution | whole length |
| Awns or scurs - length: | very long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | long to very long |
| Beak curvature | v.slightly curved |
| Shoulder width | very narrow to narrow |
| Shoulder shape | elev. to elev with 2nd point |

Lower lemma

| | |
|----------------|----------|
| Beak curvature | straight |
|----------------|----------|

Grain

| | |
|-------------------------|-------------------|
| Colour | red |
| Colouration with phenol | dark to very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

SOISSONS**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | awns present |
| Awns or scurs - distribution | whole length |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | absent to weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak - Group 1 |
| Beak length | |
| Beak curvature | |
| Shoulder width | narrow |
| Shoulder shape | slightly sloping |

Lower lemma

| | |
|----------------|----------|
| Beak curvature | straight |
|----------------|----------|

Grain

| | |
|-------------------------|-----|
| Colour | red |
| Colouration with phenol | |

Straw

| | |
|---------------------------------|------|
| Length | |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|---------------------|
| Flag leaf - sheath | absent or very weak |
| Flag leaf- blade (lower side) | weak |
| Culm - neck | absent or very weak |
| Ear | absent or very weak |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | very early to early |
| Flag leaf - anthocyanin of auricles | absent or very weak |

SOLACE**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short to medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ½ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderate to strongly curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

SOLSTICE**CHARACTERS IN DETAIL****Ear**

| | |
|---|----------------|
| Colour | white |
| Length | medium |
| Density | lax to medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ½ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | smooth |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|--------|
| Colour | red |
| Colouration with phenol | medium |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong to very strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|--------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | very weak |

WINTER WHEAT

AFP 1/1941

STIGG

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | very dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | straight to elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|----------------|
| Colour | red |
| Colouration with phenol | medium to dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong to very strong |
| Culm - neck | strong |
| Ear | absent or very weak |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2001

SY EPSON

CHARACTERS IN DETAIL

Ear

| | |
|--|----------------|
| Colour: | white |
| Length: | long |
| Density: | lax to medium |
| Shape (side profile) | parallel sided |
| Awns or scurs - presence: | scurs present |
| Awns or scurs - distribution: | |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness: | very weak |
| Anthers - anthocyanin | |

Lower Glume

| | |
|-----------------------------|-------------------------------|
| External surface roughness: | |
| Extent of internal hairs: | weak to medium - group 1 to 2 |
| Beak length: | short to medium |
| Beak shape (curvature): | slightly to moderately curved |
| Shoulder | narrow to medium |
| Shoulder | slightly sloping or straight |

Lower Lemma

Beak shape:

Grain

| | |
|--------------------------|--------|
| Colour | red |
| Colouration with phenol: | medium |

Straw

| | |
|-----------------------------------|-----------|
| Length: | |
| Wall thickness @ 20cms below ear: | very thin |

Glaucosity

| | |
|---------------------------------|------------------|
| Flag leaf - sheath: | medium to strong |
| Flag leaf - blade (lower side): | medium |
| Culm neck: | medium to strong |
| Ear - Glaucosity: | medium to strong |

Plant growth characters

| | |
|--|---------------------|
| Coleoptile-anthocyanin | absent to very weak |
| Plant - growth habit: | semi-prostrate |
| Time ear emergence: | medium to late |
| Flag leaf - Anthocyanin colouration of auricles: | |

WINTER WHEAT

AFP 1/1806

TIMARU

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | long |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | tip only |
| Awns or scurs - length: | very short |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------------|
| Colour | red |
| Colouration with phenol | light to medium |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium to strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1986

TORCH

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | short to medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium |
| Apical rachis segment - convex face hairiness | absent or very weak |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | medium |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

TORPHINS**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | short to medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ¼ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderate to strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong to very strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1954

TUXEDO

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium to strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

TWISTER**CHARACTERS IN DETAIL****Ear**

| | |
|---|-------------------|
| Colour | white |
| Length | short to medium |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ½ |
| Awns or scurs - length: | long to very long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium to long |
| Beak curvature | moderate to strongly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|--------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1812

VISCOUNT

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | medium to long |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|---------------------|
| Length | very short to short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | medium |
| Culm - neck | medium to strong |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|----------------------------|
| Coleoptile - anthocyanin colouration | strong |
| Plant - growth habit | semi-erect to intermediate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | |

WARRIOR**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | short |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/4 |
| Awns or scurs - length | medium to long |
| Apical rachis segment - convex face hairiness | weak to medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|---------------------------|
| External surface | slightly rough |
| Extent of internal hairs | weak to medium - Group 1+ |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow to medium |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | n/a |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | medium |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|------------------|
| Coleoptile - anthocyanin colouration | medium to strong |
| Plant - growth habit | semi-erect |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/2029

WEAVER

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium to long |
| Density | medium to dense |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{1}{4}$ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | strong |
| Anthers - anthocyanin colouration | |

Lower glume

| | |
|--------------------------|------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | strongly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | strongly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|-----------|
| Colour | red |
| Colouration with phenol | very dark |

Straw

| | |
|---------------------------------|-----------------|
| Length | short to medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | strong |
| Culm - neck | strong |
| Ear | medium to strong |

Plant growth characters

| | |
|--------------------------------------|----------------|
| Coleoptile - anthocyanin colouration | absent to weak |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | |

WINTER WHEAT

AFP 1/1449

WELFORD

CHARACTERS IN DETAIL

Ear

| | |
|---|------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper 1/2 |
| Awns or scurs - length | medium |
| Apical rachis segment - convex face hairiness | medium to strong |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|----------------------|
| External surface | slightly rough |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | straight to elevated |

Lower lemma

| | |
|----------------|-------------------|
| Beak curvature | moderately curved |
|----------------|-------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|-------|
| Length | short |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|----------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong |
| Ear | weak to medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

AFP 1/1281

XI19

CHARACTERS IN DETAIL

Ear

| | |
|---|----------------|
| Colour | white |
| Length | medium to long |
| Density | medium |
| Shape-side profile | tapering |
| Awns or scurs - presence | scurs present |
| Awns or scurs - length: | short |
| Awns or scurs - distribution | tip only |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | medium |
| Beak curvature | moderately curved |
| Shoulder width | narrow |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | moderately to strongly curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|-----------------------|
| Flag leaf - sheath | strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | strong |
| Ear | strong to very strong |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | absent or very weak |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | late |
| Flag leaf - anthocyanin of auricles | very weak |

ZEBEDEE**CHARACTERS IN DETAIL****Ear**

| | |
|---|-----------------|
| Colour | white |
| Length | medium to long |
| Density | lax to medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper ¼ |
| Awns or scurs - length: | short to medium |
| Apical rachis segment - convex face hairiness | weak |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|-----------------------------|
| External surface | smooth |
| Extent of internal hairs | medium - Group 2 |
| Beak length | medium |
| Beak curvature | slight to moderately curved |
| Shoulder width | narrow to medium |
| Shoulder shape | straight |

Lower lemma

| | |
|----------------|-------------------------------|
| Beak curvature | slightly to moderately curved |
|----------------|-------------------------------|

Grain

| | |
|-------------------------|-----------------|
| Colour | red |
| Colouration with phenol | light to medium |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|------------------|
| Flag leaf - sheath | medium to strong |
| Flag leaf- blade (lower side) | |
| Culm - neck | medium to strong |
| Ear | strong |

Plant growth characters

| | |
|--------------------------------------|---------------------|
| Coleoptile - anthocyanin colouration | medium |
| Plant - growth habit | intermediate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | absent or very weak |

WINTER WHEAT

AFP 1/2155

ZULU

CHARACTERS IN DETAIL

Ear

| | |
|---|---------------------|
| Colour | white |
| Length | medium |
| Density | medium |
| Shape-side profile | parallel sided |
| Awns or scurs - presence | scurs present |
| Awns or scurs - distribution | upper $\frac{3}{4}$ |
| Awns or scurs - length: | long |
| Apical rachis segment - convex face hairiness | medium |
| Anthers - anthocyanin colouration | absent |

Lower glume

| | |
|--------------------------|------------------|
| External surface | smooth |
| Extent of internal hairs | strong - Group 3 |
| Beak length | medium |
| Beak curvature | slightly curved |
| Shoulder width | narrow |
| Shoulder shape | elevated |

Lower lemma

| | |
|----------------|-----------------|
| Beak curvature | slightly curved |
|----------------|-----------------|

Grain

| | |
|-------------------------|------|
| Colour | red |
| Colouration with phenol | dark |

Straw

| | |
|---------------------------------|--------|
| Length | medium |
| Wall thickness @20cms below ear | thin |

Glaucosity

| | |
|-------------------------------|----------------|
| Flag leaf - sheath | medium |
| Flag leaf- blade (lower side) | weak to medium |
| Culm - neck | medium |
| Ear | medium |

Plant growth characters

| | |
|--------------------------------------|-----------------------------|
| Coleoptile - anthocyanin colouration | weak to medium |
| Plant - growth habit | intermed. to semi-prostrate |
| Time of ear emergence | medium to late |
| Flag leaf - anthocyanin of auricles | |