

# THE POTENTIAL FOR DOMESTIC CHICKPEA PRODUCTION

Chickpea is a nitrogen-fixing legume with the potential to reduce fertiliser use across the rotation, producing food-grade seeds rich in protein, fibre and minerals. With 60,000 tonnes currently imported each year there should be a ready market for UK-grown chickpea provided that the quality and price are competitive, and that crops can slot into appropriate farming systems. However, with no UK breeding and selection, little is known about how to best grow chickpea in our conditions.

Cicero was a two-year Defra-funded feasibility study led by Niab (agronomy, genetics, breeding) with supply chain partners Premium Crops (seed supply, agronomy, end-user markets), Place UK (grower and processor) and Viridian Seeds (genomics and biotechnology), with three broad aims:

1. To identify which current varieties are best suited to UK conditions
2. To understand how to grow these varieties more reliably and profitably
3. To begin breeding work targeting improved UK adaptation.

Across two cropping seasons (2023 and 2024) the study:

- Established basic agronomy principles: weed control, sowing date, planting density, crop inputs, harvesting;
- Began to understand which traits are most important for building yield;
- Made crosses and kickstarted new breeding populations;
- Screened diverse chickpea material in the field to identify promising adaptation traits for new crossing and selection;
- Established new induced variants, and characterised these for key target genes, such as flowering time;
- Started to develop some of the underpinning technologies needed for future smart breeding approaches, including genome sequencing and predictive quality testing.

## Conclusion

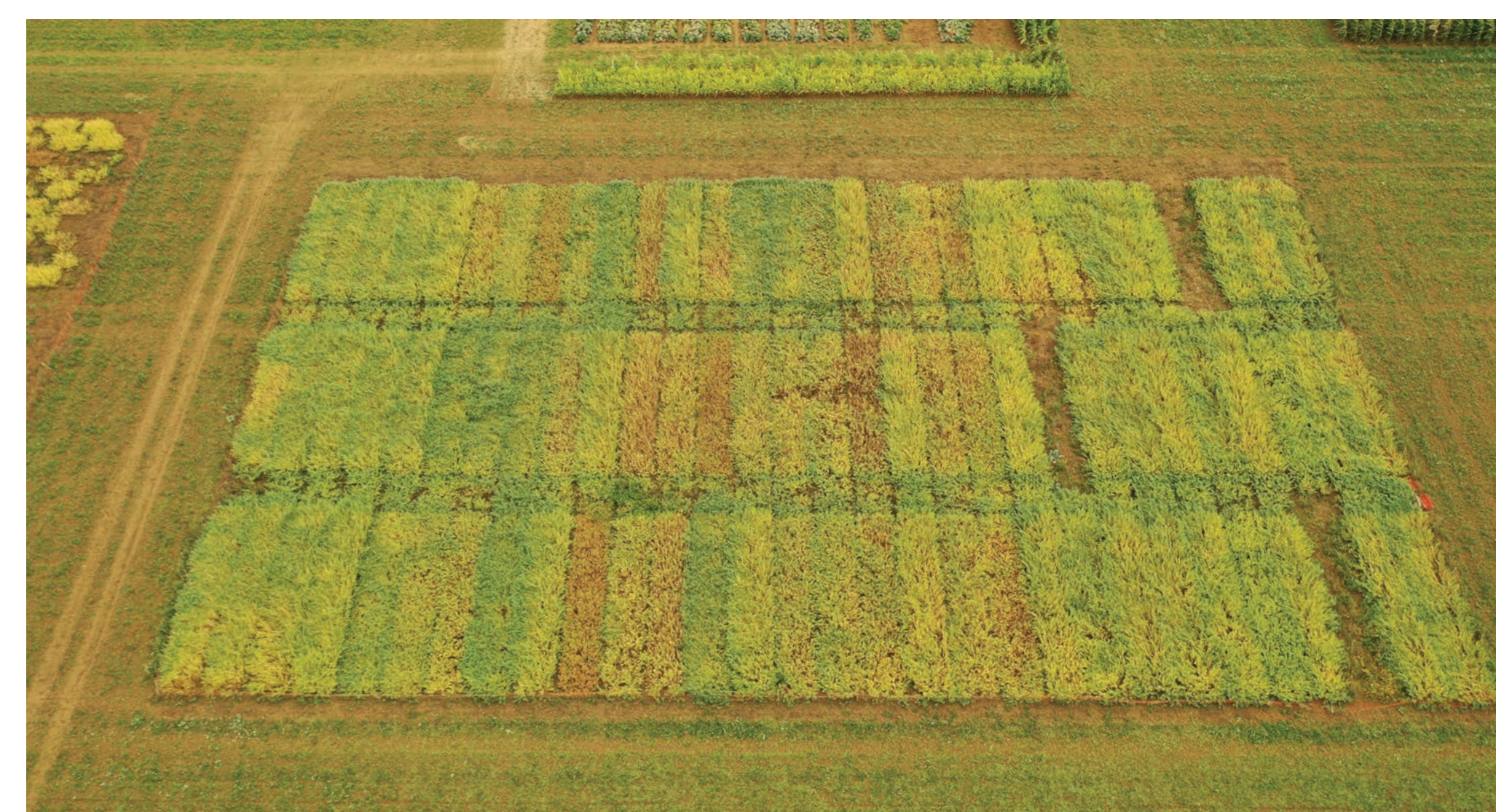
If new, earlier varieties can deliver good yield and quality from reliable mid-September harvest year-on-year supported by end-user contracts, then UK-grown chickpea could become a viable combinable break crop and entry for subsequent winter cereals.



Extent of variation across 2023 Niab nursery plots



Field scale tests of sowing rate/drilling date interactions, Place UK August 2024

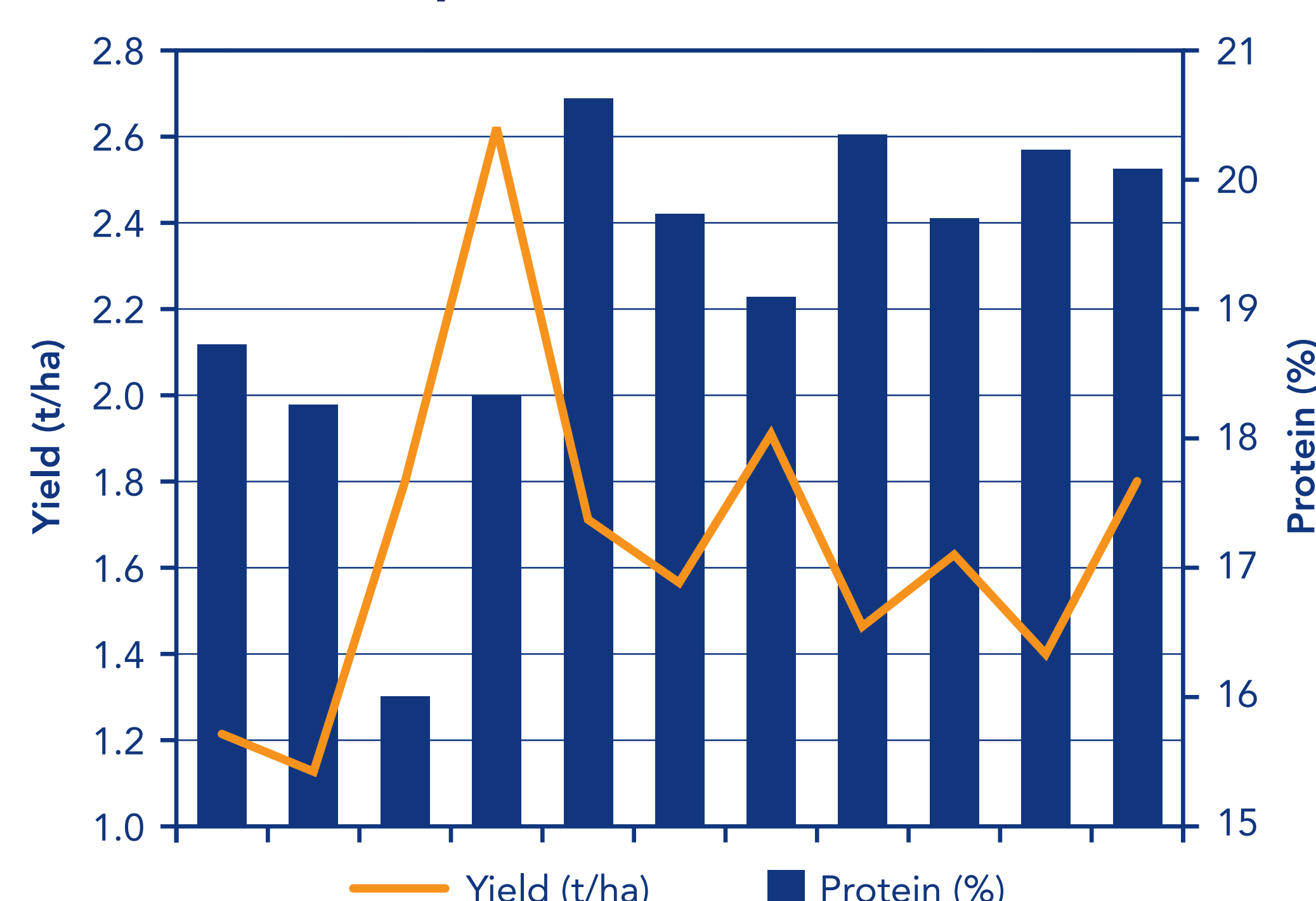


Seed rate (left), variety (centre) and herbicide trials (right), Niab September 2024



Contrasting seed types within 2024 Niab nursery plots

**Figure 1. Yield and protein content of varieties in replicated field trial, Niab 2024**



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