



Variety specific nitrogen recommendations

RESEARCH FOCUS

CUPGRA funded research in the mid 1980s by Cambridge University Farm, the precursor to NIAB CUF, showed that the optimal nitrogen (N) application rate was dependent on potato variety and season length (Figure 1).

Further CUPGRA funded work demonstrated the physiological basis for varietal differences in N requirement and established the basis of the current 'determinacy' groups. This research was picked by other funding bodies including AHDB. CUPGRA funded work continues today (Figure 2) to better understand variation in N requirement and yield.

Impact

Pre-2000, fertiliser recommendations for potatoes were mainly based on soil type, previous cropping and use of organic manures and there was little adjustment to fertiliser rates for length of season or variety. The CUPGRA funded research marked a significant step-change in this advice and the information was incorporated into Defra's 'Fertiliser Recommendations for Agricultural and Horticultural Crops', known as RB209, leading to more efficient use of N and increased productivity. RB209 is now part of AHDB's Nutrient Management Guide, specifically in 'Section 5 Potatoes'.

Figure 1: The varying effects of nitrogen fertiliser applications on potato variety production (CUPGRA, 1993)

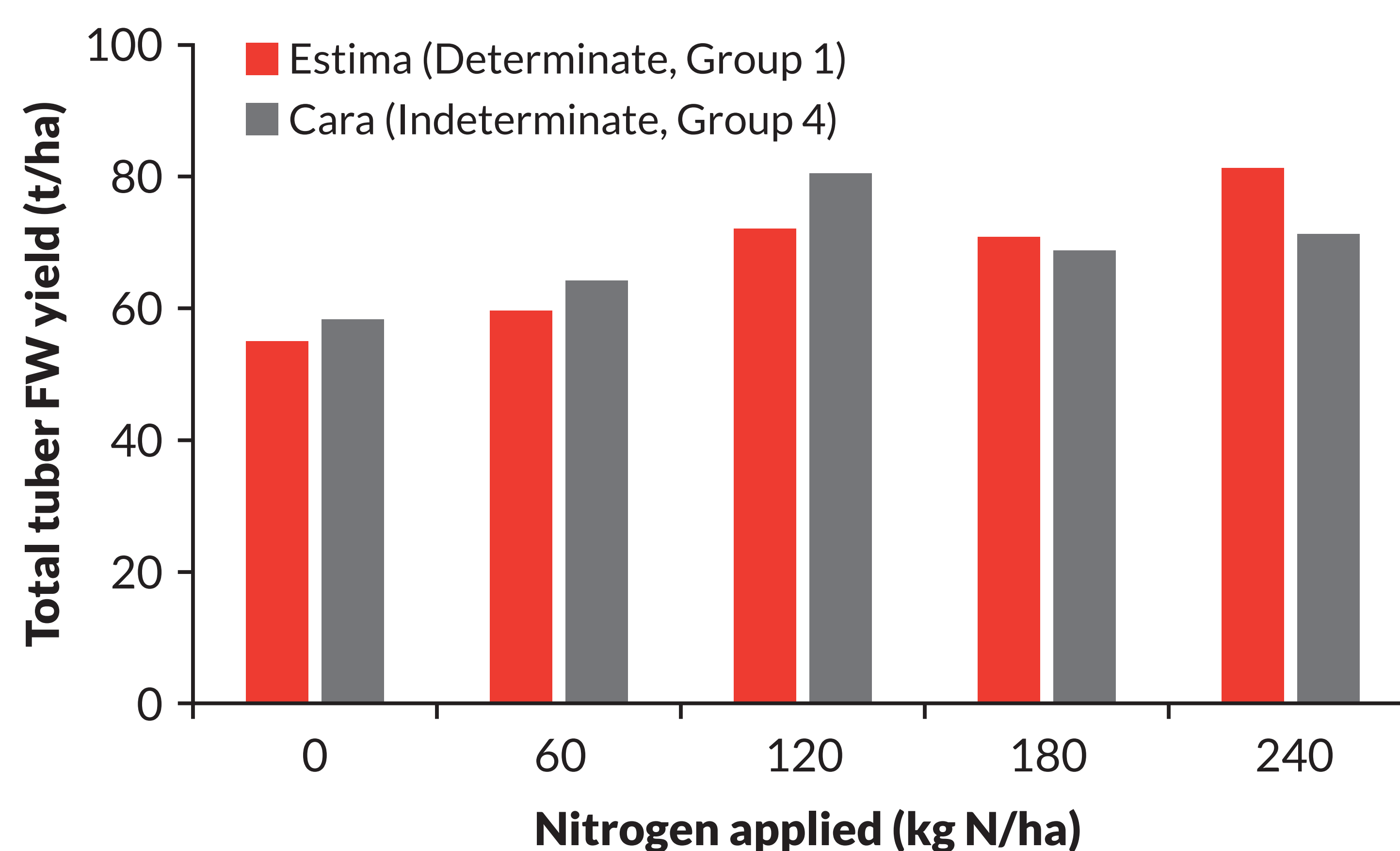


Figure 2: Variety nitrogen response field trial at NIAB in 2020



Image courtesy of Blackthorn Arable Ltd

CUPGRA promotes the interchange of scientific research and field practice for innovative, sound commercial production of potatoes through its association with NIAB and other research organisations, funding independent, high-quality research.

