

THE INFLUENCE OF LATE NITROGEN ON THE GROWTH AND YIELD OF WINTER OIL
SEED RAPE (B. napus L.)

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Summary

The current recommendations for spring nitrogen application to winter oil seed rape (B. napus) is based on empirical experiments carried out on different soil types throughout the United Kingdom. Both the effects of rate and time of application on seed yield have been investigated. This evidence suggests that the timing of this application is not critical, provided it is applied during the period from late February to early April. No attempt has been made, however, to relate the effects of nitrogen timing to plant growth and development, although a strong relationship has been established between nitrogen rate and pod number at final harvest. This yield component is, in turn, determined by the capacity of the plant to initiate flowers (potential pod sites) and support pod development (pod survival). The application of early spring nitrogen stimulates flower and pod production while late nitrogen has a greater influence on pod survival.

The role of late nitrogen applications on pod development has been examined in field trials over a period of two years. A fertiliser programme based on limited early nitrogen input in combination with a late application at the start of flowering gave a significant yield advantage. The results presented in this paper will summarise the effects of late nitrogen on individual yield components.