

GROWERS' AGRONOMY NOTES 2010

Breeder: Raps GbR, Germany

UK Marketing Agent: Nickerson

Delight is a restored hybrid spring oilseed rape variety with a very high gross output potential, good lodging resistance and early flowering; overall a sound agronomic package. These Agronomy Notes are intended to provide some technical information on Delight and give guidance on growing spring oilseed rape to help maximise the potential of Delight on farm.

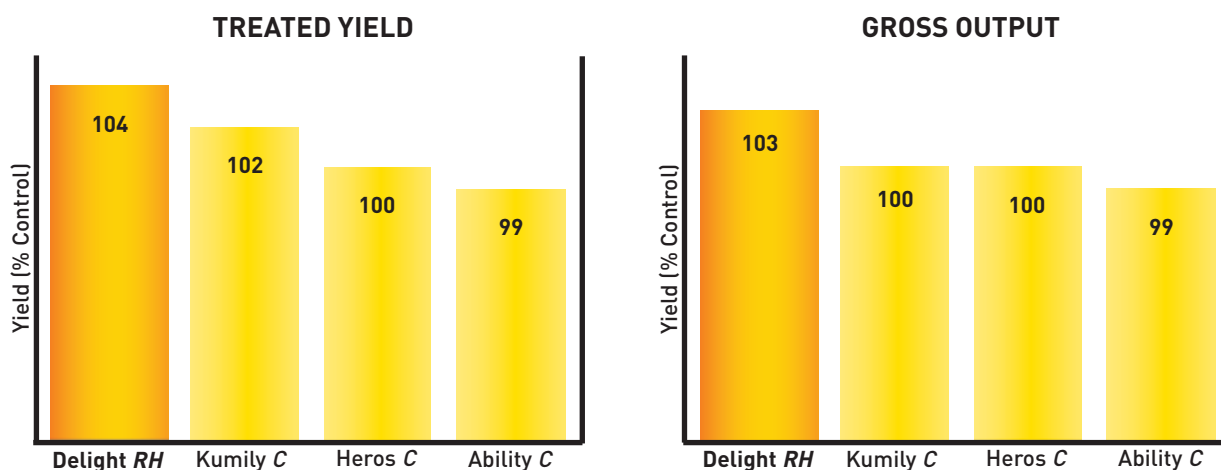
BACKGROUND

Like their winter counterparts, spring oilseed rape hybrids are created by crossing pure parental lines to produce an 'F1' generation that is more vigorous and productive than the parents. Preventing self-fertilisation of the maternal parent produces hybrid seed. With many of the hybrids currently available this is achieved by artificially introducing male sterility to prevent pollen production in the female parent. The resulting female (male sterile) line is then crossed with the male (pollen producing) parent to produce hybrid seed. All plants are fully fertile, capable of producing pollen and setting seed without cross pollination.

Hybrid varieties can be considered as more reliable than a conventional variety. The combination of hybrid vigour and agronomic characters often leads to faster establishment, particularly in difficult seasons. This in turn leads to the crop outcompeting weeds earlier in the season, so crop growth and yield are not compromised.

YIELD AND GROSS OUTPUT POTENTIAL

Hybrids can frequently achieve higher yields than conventional open-pollinated varieties. Delight has shown a very high performance in trials with a yield of 104% of the control (below left).



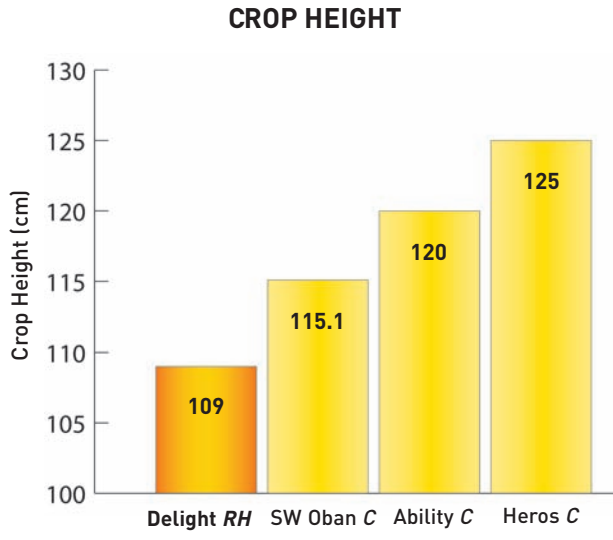
RH = Restored Hybrid, C = Conventional. The control variety was Heros.

Delight also has a very high oil content, resulting in a very high gross output (above right) in these trials.

	Delight RH	Kumily C	Heros C	Ability C
Oil Content (%)	43.8	42.2	44.0	43.9

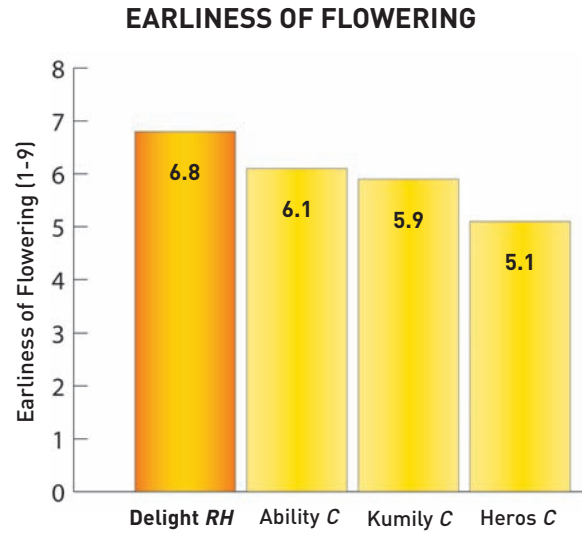


AGRONOMIC CHARACTERS



Source: Raps GbR, Suffolk 2009

Delight is a short stemmed variety producing small plants with good lodging resistance. This was illustrated in trial where Delight was the shortest of the varieties tested.



Delight is early to flower, as seen in data from UK trials in 2009.

Delight has medium maturity, which combined with its early flowering gives a long pod fill.

	Delight RH	Kumily C	Heros C	Ability C
Earliness of Maturity	6	6	6	6

ESTABLISHMENT AND SEED RATE

Delight should be sown in the first three weeks of April; drilling should not start until soils have warmed up sufficiently to favour rapid establishment. Restored hybrids, such as Delight, have shown excellent early vigour and this is seen as a major attribute, allowing greater flexibility in sowing date. Being small seeded, a fine firm seedbed is essential to encourage even germination; rolling after drilling will help conserve moisture.

As with the winter crop, seed rates for hybrids should be lower than for conventional types. For drilling between the 1st and 20th April, under good conditions, the aim should be to sow 90 - 100 seeds/m², reducing this to 80 - 85 seeds/m² for later sowings. (Seeds/m² x thousand grain weight x 0.01 = seed rate in kg/ha). Sowing depth should be 2 - 3cm on heavier soils, 3 - 4cm on lighter soils, prone to drying out.

For spring 2010, Delight will be supplied in packs containing 2.5 million viable seeds, sufficient to sow between 2.5 and 3.0ha.

Patience is frequently rewarded with spring oilseed rape as a quick growing crop will compete with many weeds and pests, whereas slow growing crops will be difficult to manage all season.



WEED, DISEASE AND PEST CONTROL

Spring oilseed rape is frequently seen as a low-input crop.

- Herbicide inputs are generally kept to a minimum, relying on the competitiveness of the crop to smother weeds, especially with hybrid varieties. The loss of trifluralin removes a cheap option for weed control leaving metazachlor (e.g Butisan S) as the main choice where weed pressure is likely to be high or clomazone (e.g. Centium) if cleavers are expected. Grassweeds such as wild oats or blackgrass can be controlled with some graminicides.
- Disease is generally not a problem in spring rape (although it is susceptible to many that infect its winter counterpart). If spring crops are located close to winter crops there can be cross infection and, if conditions favour the development of Sclerotinia or Alternaria, a fungicide application during flowering may be necessary.
- Two insect pests – flea beetles and pollen beetles – frequently cause damage to spring oilseed rape. Insecticide seed treatments will delay flea beetle attack but a follow up spray may be necessary. Pollen beetle is the most critical pest for the crop and careful monitoring should take place between green bud and flowering. The threshold for treatment with an approved pyrethroid insecticide – 3/plant – is considerably lower than for the winter crop. Crops should only be treated if this threshold is reached to reduce the risk of insecticide resistance occurring. Delight is an early flowering variety so timing of the pollen beetle insecticide is likely to be before other spring oilseed rape varieties.

NUTRITION

Spring rape crops generally use nitrogen fertiliser more efficiently than winter crops because their requirement coincides with the release of soil N during May and June. Spring oilseed rape typically requires about half the amount of nitrogen of the winter crop (SNS 0/N group1) and less P and K. Timing of application for nitrogen is either all in the seedbed or split between drilling and early May, depending on soil type and total requirement. Please refer to DEFRA RB209 or SAC TN625 for further information.

Spring oilseed rape is very responsive to sulphur and this can be applied with the nitrogen fertiliser. It is also more susceptible to boron deficiency than winter types, especially on the lighter soils. Boron should be applied according to soil or tissue analysis.

HARVESTING

Hybrid varieties in general tend to be quicker to ripen than conventional types. Delight is short - producing low biomass – and uniform to mature, making it well suited to direct combining without the need for a desiccant.

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Data from the HGCA Recommended Lists database, full data at www.hgca.com and RAPS GbR data in the UK and Germany. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree.

Disclaimer: The information in this document is for guidance only and does not constitute a recommendation. Nickerson cannot accept any liability in connection with the use of this information.