

Canola Row Spacing x Sowing Rate Trial 2013

This trial was sown to examine the effect of widening the row spacing on yield in canola. The row spacings were 7", 14" and 28" (17cm, 35 cm and 70 cm). As well as increasing the row spacing, two seeding rates were included, 25 and 50 plants/m² (or 1.6 and 3.2 kg/ha).

Sown on April 24th, the trial was watered up on April 26th.

The trial was topdressed on July 11th with 50 kg N/ha and again on August 11th at 30 kg N/ha to bring the total N budget to 210 kg N/ha, enough for a 3.5 t/ha crop.

First and only spring irrigation was on September 9th.

The trial was windrowed on October 28th, with lodging and height measured.

The trial was harvested on November 6th.

Row Spacing (inches)	Plant Height (cm)	Lodging Score	Yield (t/ha)	Oil (%)
7	142	7.5	3.24 ^a	44.4
14	138	8.0	3.05 ^{ab}	44.0
28	142	7.0	2.82 ^b	43.9

P = 0.016, lsd = 0.26

Lodging Score – 9 is vertical, 0 is flat. Yield with similar suffixes are not significantly different.

Plant Population (pl/m ²)	Yield (t/ha)
25	3.23
50	3.25

Row spacing did have an effect on yield - increasing the row width decreased yield but only significantly between the 7" and 28" treatments (ie no difference between 7" and 14" or 14" and 28" spacings).

While there was a slight trend to greater lodging in the higher populations at wider row spacing, the data was variable and differences insignificant.

Although there was no significant yield difference between sowing rates for 25 and 50 plants/m², 2013 was an excellent year for establishment. Our sowing rates are calculated for a target population of 50 plants/m² for most of our canola trial as this has been shown to give us the best results year in, year out. Some seasons are not so friendly and we have had establishment figures in the low 20s and yields in the 2 t/ha bracket rather than 4 t/ha. As demonstrated by this trial, "low" sowing rates can be successful if everything goes right – excellent establishment and early crop growth, good weed control and nutrition, but if something goes astray, eg a dry winter that doesn't allow the plants to compensate for a lack of numbers, then the crop yield potential is limited.