

COMPARISON OF IN-LINE AND PAIRED TYNES

A total of seven trials were conducted over two seasons to **assess the effect of ground speed on the performance of in-line and paired tynes** on the establishment and production of wheat and canola on various soil types.

2017 TRIALS

- Trial Crops: 3x wheat
- Soil Types: Heavy, gravelly and light
- Rainfall: Slightly above average, excellent growing conditions

Light soil type: paired tynes resulted in significantly higher yield than traditional in-line tynes, with no effect of speed or spacings.

All other soil types: paired tynes at either spacing and speed performed equally to traditional in-line tynes in terms of crop establishment and yield.

2018 TRIALS

- Trial Crops: 3x wheat, 1x canola
- Wheat Soil Types: Heavy, gravelly and light
- Canola Soil Type: Non-wetting soil
- Rainfall: Significantly lower than average, challenging growing conditions

Heavy soil type: 95 mm paired tynes resulted in significantly higher crop establishment at 10km/hr and higher yield at both 7 and 10km/hr than traditional in-line tynes.

All other soil types: paired tynes at either spacing and speed performed equally to traditional in-line tynes in terms of crop establishment and yield.

When the data was analysed across all wheat trials over both seasons, paired tynes at both spacings and speeds performed equally or better than the traditional in-line tynes as per table below:

VARIANCE ANALYSIS OF WHEAT TRIALS OVER 2017 & 2018 SEASONS FOR CROP ESTABLISHMENT (PLANTS/M ROW) AND CROP YIELD (T/HA)

TRIAL NO.	SPEED	TREATMENT	PLANT COUNTS /M ROW	CROP YIELD T/HA
1	7 km/hr	<i>In-line</i>	29.7 a	3.72 a
3		Paired 75mm	28.8 a	3.73 a
5		Paired 95mm	29.1 a	3.72 a
2	10 km/hr	<i>In-line</i>	28.4 a	3.69 a
4		Paired 75mm	29.2 a	3.74 a
6		Paired 95mm	29.3 a	3.81 a
LSD P = .05 Standard Deviation CV			NSD 2.82 9.7	NSD 0.204 5.46

Means followed by same letter do not significantly differ (P=.05, LSD)