



## Sunflower Field Walk

*7 March, 2019. Courtesy of Turley Farms Limited and Pure Oil NZ*

### Key points

- High oleic sunflower has been selected as a crop of interest for the FAR/MPI SFF funded project “Food Products for the Future” which will continue until 2021.
- High oleic sunflower was identified as a potential option for growers in 2017 as a result of a current market demand for New Zealand sourced high oleic oil and an alternative summer crop to fit in the arable rotation.
- Depending on the hybrid selection and sowing dates, the crop can reach maturity between 90-120 days and can be grown as a low-input option.
- Ongoing research will focus on weed control and desiccation tools that can provide escape from bird damage and disease at the final stages of the crop.

### 2018/19 crop details, Turley Farms, Chertsey

- Previous crop vining peas harvested 9 - 10 December.
- Ploughed and drilled straight away.
- Due to wet weather, pea harvest was delayed and held up planting.
- No fertiliser applied, good fertility and pea residue ploughed under.
- Costs to date \$976 ha - mostly cultivation and irrigation.
- Harvest drying and transport to come.
- Growing costs approx. \$1300-\$1400 ha.

### 2017/18 Sunflower time of sowing x by cultivar trial, Lincoln

#### Introduction

A trial at Lincoln in 2017/18 evaluated four sowing dates for two hybrids (Baltic and Idillic) that are monounsaturated and high in oleic acid. High oleic is usually defined as having a minimum of 80 percent oleic acid.

#### Methods

The trial was undertaken at the Kowhai FAR Research at Lincoln sown in 45 cm row spacing at four different timings; 26 October 2017 followed by 8-Nov, 22-Nov and 6-Dec. Trifluralin was applied pre-sowing and cultivated into the soil straight after application. Soil testing on September 6 showed potentially available nitrogen was 87 kg/ha, and based on this, 100 kg/ha (46 kg N/ha) urea was applied on December 18. Each cultivar and time of sowing was harvested at an average of 17 percent seed moisture content. No desiccant was applied. The trial area was irrigated.

## Results

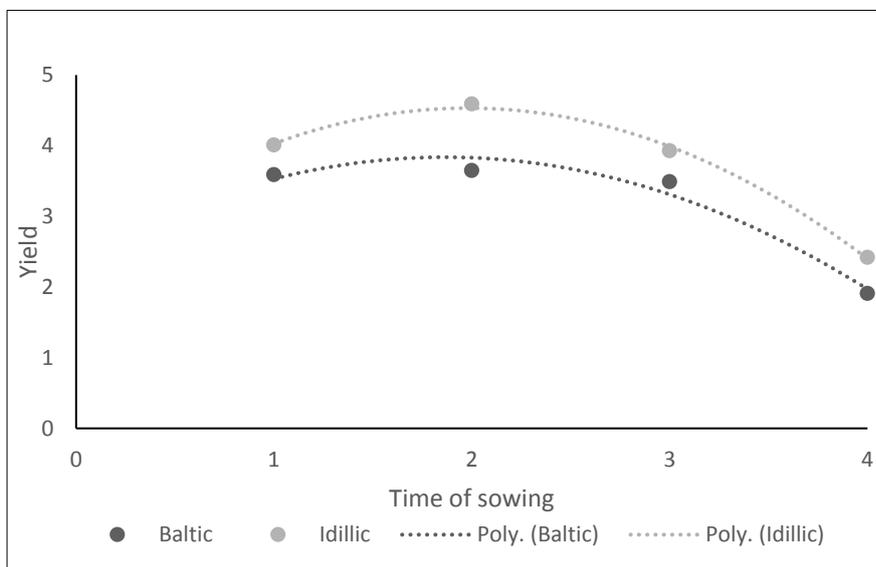
The average yield for Idillic was 3.74 T/ha and for Baltic 3.16 T/ha. The second time of sowing (TOS) on 8 November achieved the highest yield of 4.59 ton/ha. The highest yield was for the second sowing date on the 8 November; 4.59 T/ha for Idillic and 3.65 T/ha for Baltic (Table 1).

**Table 1.** Seed yield (T/ha) of sunflower cv 'Baltic' and 'Idillic' sown at four sowing dates at Lincoln 2017/18.

Cultivar			
TOS	Date	Baltic	Idillic
1	26 Oct	3.59	4.01
2	8 Nov	3.65	4.59
3	22 Nov	3.49	3.93
4	6 Dec	1.91	2.42
mean		3.16	3.74
	cultivar LSDs%	0.55	

**Plant height** averaged 116 cm. There was no cultivar or TOS effect on height.

**Leaf number** (leaf scars) averaged 19 per plant. There was no cultivar or TOS effect on the number of leaves.



**Figure 1.** Seed yield (T/ha) of sunflower cv 'Baltic' and 'Idillic' for 4 sowing dates at Lincoln, 2017/18.

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