

## **F2 Crop Topping/Harvest timing (Blue pea focus), LRZ Southern Mallee (Curyo), Victoria**

### **Aim**

To compare the growth, grain yield of potential new blue field varieties.

### **Treatments**

Varieties: OZB1308, OZB1310, OZB1311, OZB1315, OZB1324, Excell (blue, control), PBA Pearl (White), Kaspas (Dun).

Treatments:

Treatment	Detail
Nil	No desiccant applied (Harvested at correct time)
Mid Crop-top	Paraquat 250 @800ml /ha applied at ryegrass milky dough stage ("Recommended").
Delay Harv 1	Harvest delayed by approximately 7 days
Delay Harv 2	Harvest delayed by approximately 14 days

### **Other Details**

Sowing date: 2 May  
Row Spacing: 36 cm  
Stubble: Standing (approximately 15 cm), sown inter-row  
Fertiliser: MAP + Zn @ 60 kg/ha at sowing  
Plant Density: 40 plants/m<sup>2</sup>  
Soil type: Soil Type: Alkaline Sandy Loam over a heavy clay at about 40-60cm (Table 1 in Trial L1 above)

### **Results and Interpretation**

- Key Message: The new blue lines showed yield 30% to 75% higher than Excell, with some lines having better or similar quality characteristics to Excell.
- Plant establishment – Establishment ranged between 30 and 40 plants/m<sup>2</sup> (data not shown).
- Plant growth, Flowering and Maturity – Growth until August was good, however the dry and cold conditions throughout August and September slowed growth and reduced grain yields. As with other trials, there was little or no disease present. All of the new blue lines appeared to have excellent growth and plant habits, much better than Excell. Flowering dates were generally within 2-3 days of PBA Pearl (see Table 1, trial F1). Maturity, except OZB1315, was slightly later than PBA Pearl.
- Grain Yield and Grain Weight – Due to the extremely dry finish to the season there was no significant impact of harvest treatment on grain yield, weight and seed quality. Grain yields of the new blues ranged from 0.93 to 1.25 t/ha, all significantly higher than Excell (0.71t/ha) and Kaspas (0.79t/ha) (Table 1). In this trial, PBA Pearl had yields of 1.56t/ha, which is 0.5t/ha higher than in the variety trial (F1. Above); reasons for this difference are unclear. Unfortunately, the higher yielding blue peas were the smallest seeded lines.

**Table 1.** Grain Yield and Grain Weight new blue field pea lines at Curyo in 2014 compared with Excell (Blue), PBA Pearl (White), and Kaspas (Dun).

Variety	Grain Yield (t/ha)	Grain Weight (g/100seed)
PBA Pearl	1.56	20.0
OZB1315	1.26	18.5
OZB1324	1.20	18.3
OZB1308	1.19	18.9
OZB1310	1.17	21.3
OZB1311	0.93	21.6
Kaspas	0.79	19.2
Excell	0.71	20.9
Lsd (P<0.05)	0.09	0.5

### **Key Findings and Comments**

- The new blue lines showed yield 30% to 75% higher than Excell, with some lines having better or similar quality characteristics to Excell. Some of the lines still have quite mixed seed colour (darker and lighter blue), which needs to be investigated and sorted in trials for 2015.