

2020 VARIETY TRIALS

Faba Beans

Variety trials under irrigation provide key information on varieties in terms of yield potential, grain quality and also assess varietal characteristics such as maturity, height, disease resistance and lodging. The Kerang Research Centre is predominantly self-mulching grey clay, or a medium grey clay, with a bit of red medium clay on the western section.

Sowing Date 8th May

Target Plant Population 25 plants/m²

Seeding Rates 135 - 205 kg/ha based on TGW

Irrigation 1.7 MI/ha - 10th April
0.9 MI/ha - 6th September
0.9 MI/ha - 7th October

Total Water 3.5 MI/ha
GSR 250.1mm

Fungicide Chlorothalonil 1.5 l/ha 6th August
Chlorothalonil 1.5 l/ha 6th September
Chlorothalonil 1.5 l/ha 5th October

Harvest 15th December

E

This trial has a mix of current varieties and new lines, totalling 17 entries. Establishment was close to perfect with an establishment rate of 99%.

F

Flowers were first noted on 11 August and all but one (Nura) were flowering by 17 August, which is a little later than usual.

H

Plant height was similar to last season, with most varieties in the 110-120 cm range at harvest. However lodging was much less than what occurred in 2019.

B

Bean size was also up on last season, with Samira seed size being 79.2 g/100 seeds. If a similar trend has occurred in the commercial crops, this means sowing rates in 2021 may have to be increased to compensate for the larger bean size.

Results

5.7 t/ha
Average Yield

6.3 t/ha
Highest Yield

| Variety/Line | Yield t/ha | Bean HGW | Height (cm) | Lodging Score |
|--------------|------------|----------|-------------|---------------|
| AF14092 | 6.34 | 91.9 | 110 | 1 |
| AF14075 | 6.20 | 81.6 | 120 | 2 |
| AF14066 | 6.17 | 92.8 | 110 | 2 |
| PBA Nanu | 5.85 | 75.1 | 110 | 2 |
| PBA Marne | 5.83 | 80.5 | 110 | 2 |
| AF10089 | 5.82 | 88.8 | 110 | 2 |
| AF12025 | 5.80 | 65.9 | 110 | 2 |
| PBA Bendoc | 5.80 | 70.4 | 110 | 3 |
| PBA Amberley | 5.69 | 76.9 | 120 | 1 |
| PBA Zahra | 5.69 | 89.6 | 115 | 3 |
| PBA Nasma | 5.64 | 73.3 | 95 | 2 |
| AF14062 | 5.61 | 74.3 | 110 | 2 |
| Farah | 5.54 | 72.4 | 100 | 3 |
| Nura | 5.49 | 72.6 | 110 | 1 |
| PBA Samira | 5.42 | 79.2 | 110 | 3 |
| p | 0.001 | | | |
| lsd | 0.417 | | | |
| cv% | 5.0 | | | |

While PBA Samira was the lowest yielding variety, there was no statistical difference between the yields of most of the commercial varieties. PBA Nanu (a northern variety without sufficient resistance to ascochyta or chocolate spot for the south) was the only variety statistically higher yielding than PBA Samira.

Long term average

| Variety | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Average |
|--------------|------|------|------|------|------|------|------|---------|
| AF10089 | | | 102% | 105% | 109% | 106% | 107% | 106% |
| PBA Amberley | | 99% | 107% | 107% | 98% | 95% | 105% | 102% |
| PBA Marne | 99% | 94% | 89% | 103% | 98% | 106% | 108% | 100% |
| Samira | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| PBA Bendoc | | | | 95% | 97% | 99% | 107% | 100% |
| Fiesta | 88% | 93% | 101% | 93% | | | | 94% |
| Farah | 82% | 96% | 81% | 93% | 97% | 105% | 102% | 94% |
| Zahra | 103% | 92% | 87% | 91% | 89% | 86% | 105% | 93% |
| Nura | 94% | 93% | 76% | | 93% | 101% | 101% | 93% |
| Samira t/ha | 5.5 | 5.9 | 6.7 | 7.2 | 6.2 | 5.0 | 5.4 | 6.0 |

Lodging Score: 0= no lodging, 9 = flat on the ground

Thank you to Seednet for their contribution to this variety trial.

Note: This is only one trial in one location/environment. It is advised to consult other trial results over multiple sites and seasons before making annual variety decisions.