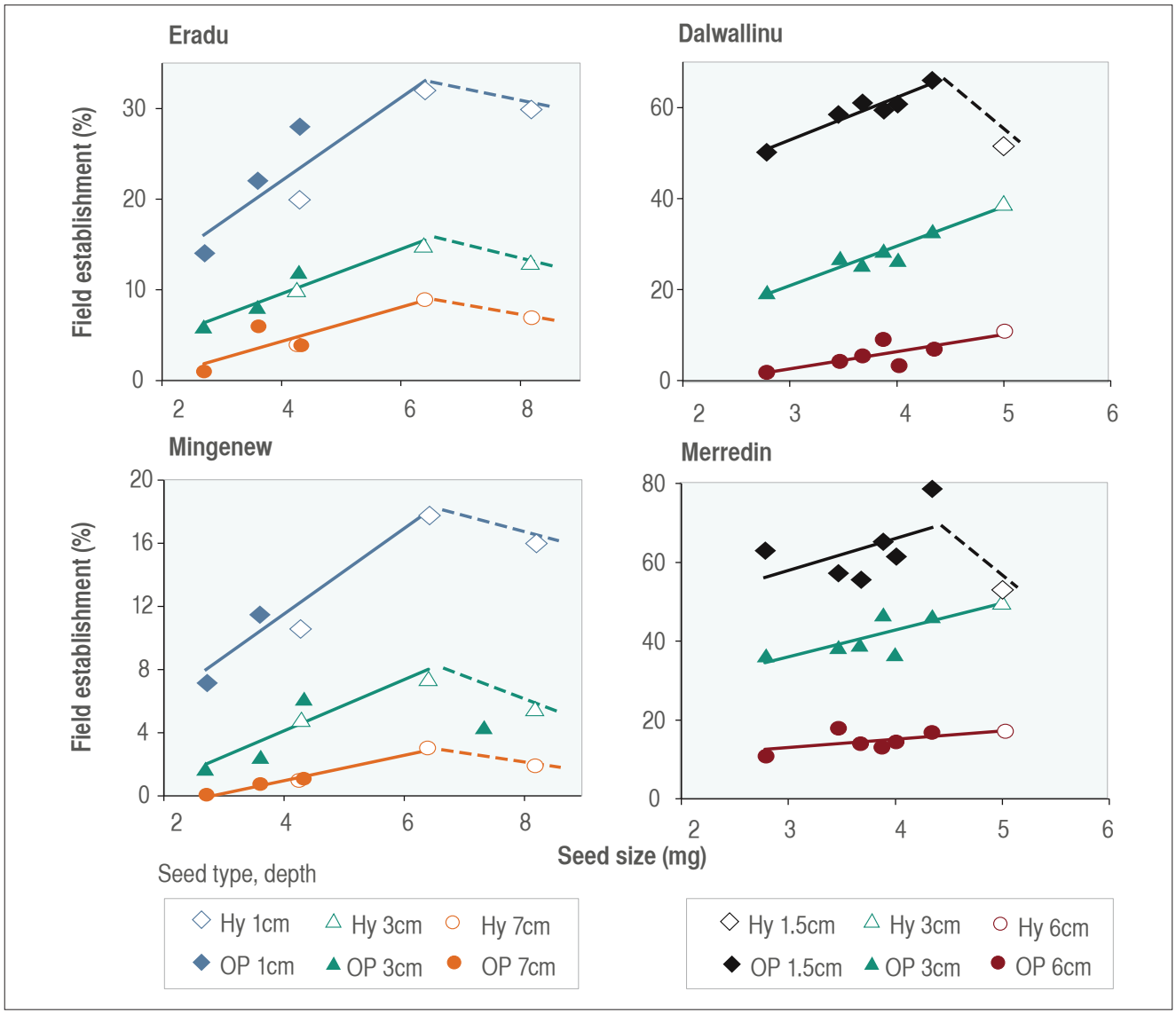

Figure 3 Higher field establishment with bigger seed size for all seed depths and locations. Fitted solid lines shows positive relationship and dotted line indicates where there was no further improvement in FE from larger seed size

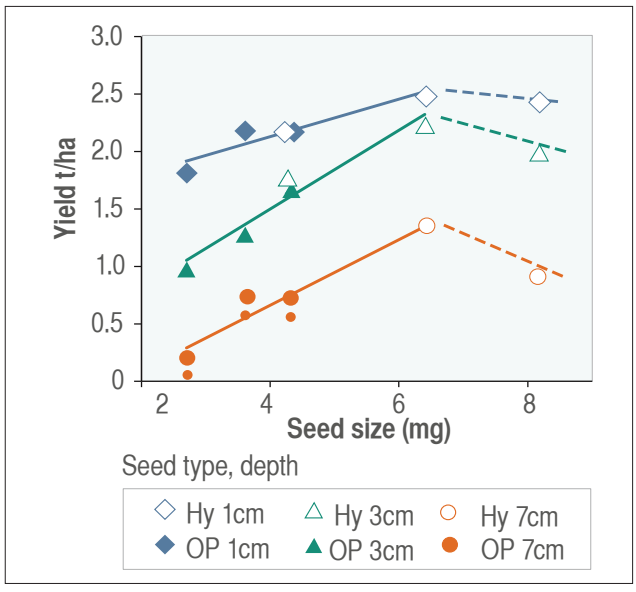

Figure 4 Yields increased with larger seed size at Mingenew in 2016

Management conclusions

Both seed depth and seed size were important for maximising canola yield, although seed depth had a larger effect.

- Stick to shallow seeding 1-1.5cm, even under hot and drying seedbed conditions.
- There was a seed size benefit up to 6.4mg size (150 000 seeds/kg), with no extra benefit from bigger seed.
- Grade OP seed for maximum seed size.
- The better emergence of hybrid seed was explained by seed size, in these experiments.
- The plasticity of the canola plant in the northern region environments was demonstrated with yields above 1.0t/ha achieved from less than 10 plants/m^2, sown in mid-April.

When to reseed canola

Mark Seymour, DPIRD

Key messages

- Reseeding early sown RR hybrid canola paddocks is only worthwhile if plant density is below seven plants/m^2 or if weed control is likely to be compromised.
- Reseeding TT canola paddocks is likely to be more beneficial than reseeding RR hybrid canola paddocks. Only consider reseeding TT OP canola if plant density is below 15 plants/m^2.
- Weed control may be compromised below 20 plants/m^2, especially for TT canola.

Background

Canola is often the first crop sown each autumn, however, as the seed is small it is best suited to shallow seeding, making it susceptible to drying soil conditions. If growers don't get a good break or decent follow-up rains they may have to consider reseeding 2-3 weeks later.

The big question for growers is whether they should leave their low density crop – less than 10 plants per square metre – alone or reseed it.

We can use information from the canola density trials and from a reseeding trial to help answer this question.

Trial results

Plant density

Since 2010 DPIRD have conducted 24 plant density experiments throughout WA.

On average hybrid canola with seven plants/m^2 achieved 80% of the yield of an optimum density crop, and 90% with 15 plants/m^2 (Figure 1).

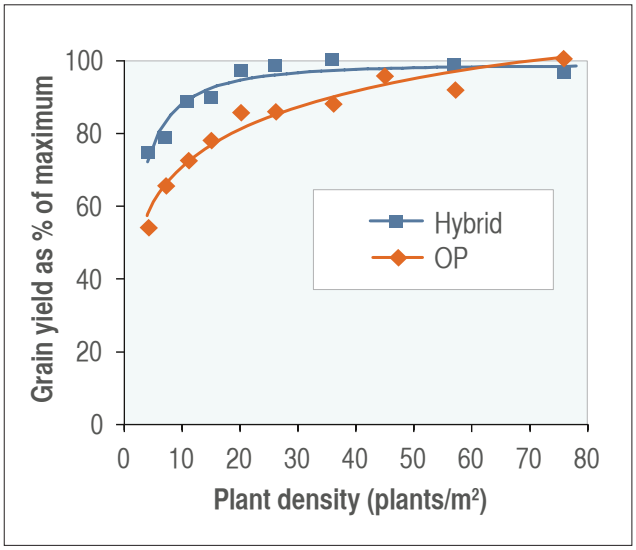

Figure 1 Response to plant density of canola

Hyola® 404RR sown on 17 April, at five plants/m^2 (right) yielded 80% of the maximum at Salmon Gums in 2013