

Pulse varieties

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Take Home Messages

Chickpeas

New ascochyta blight resistant varieties of chickpeas continue to offer great promise, but the 2006 drought severely reduced seed availability for 2007. Large seed production areas are planned for 2007 and large quantities of seed should be available in 2008 of all chickpea varieties listed below.

Fieldpeas

Varieties Sturt and Bundi (limited seed supply) will be available to growers in 2007. Both provide yield advantages over Kaspas. New early flowering Kaspas type field pea varieties have been identified and will be available to growers by 2009-10.

Lentils

The 2006 drought has delayed the release of Nipper to growers until 2008. The green lentil Boomer will also be released in 2008 and offers an opportunity for development of a green lentil industry in Victoria.

In Victoria pulse yields were severely affected by a combination of drought and frost throughout the 2006 growing season. As a consequence, experimental and commercial grain yields were very low and discrimination between varieties often too small to interpret. Disease had no impact on yield due to the drought.

Chickpea varieties

Desi

*Genesis*TM 508 has good ascochyta blight resistance and is likely to require only one fungicide application during podding. Seed is less preferred than that of Howzat and lower prices are paid for grain. Genesis 508 is lower yielding than Howzat in short season areas such as the Mallee and when the season ends relatively early. Therefore it is only suited to areas with greater than 380mm annual rainfall on heavier soils (eg Wimmera grey clays) and on sandy loam soils in the northern Wimmera and southern Mallee. A sister line to Genesis 508, *Genesis* 509, is under seed increase and is likely to be available to growers in 2008. It has similar ascochyta resistance and quality to Genesis 508 but much higher and more stable yields. All are available from Australian Agricultural Commodities (ACC).

Flipper has a similar yield to Genesis 508 (lower than Howzat) in southern Australia and has moderate resistance to ascochyta blight. To be successfully grown in southern Australia, this variety will require strategic fungicide applications at both the vegetative and podding stages. This line is most suited to conditions in northern NSW. Seed is available through AWB seeds.

Kabuli

*Genesis*TM 090 has good ascochyta blight resistance and has shown wide adaptation and excellent yield stability, even in the drier environments. Genesis 090 has a smaller sized seed, approximately 1mm smaller than that of Kaniva. Genesis 090 has the potential to be grown as a good alternative to desi chickpeas in traditional desi growing areas or as a higher yielding but

lower value alternative (smaller seed) to kabulis such as Almaz and Nafice. Available through AAC.

Almaz and Nafice are the larger seeded kabuli varieties with moderate ascochyta blight resistance. They have larger seed than Kaniva, with Nafice being slightly larger than Almaz. Both have yielded equal or better to Kaniva and offer a much lower disease risk option, however they will require at least 3 fungicides to be successfully grown. Seed is available through AWB Seeds.

Fieldpea varieties

For 2007, Kaspas, Parafield, Sturt and Bundi will be the best options for Victorian growers. Bundi is an early flowering sister of line of Kaspas producing premium white grain. It has similar agronomic features (eg pod shatter resistant) and disease responses to Kaspas, but has shown higher yield performance relative to Kaspas in shorter growing season environments such as the Mallee of up to 5%. Sturt has been the best performing variety long term and is a reliable performer. It also appears to have much better tolerance to frost damage. Sturt and Bundi are licensed to Premier Seeds.

From the breeding program 6 potential varieties have been identified for potential release and are currently undergoing evaluation in National Variety Testing (OZP001-006). All six produce dun type grain and are agronomically similar to Kaspas but have an earlier flowering habit. Mean long term yield predictions indicate a yield advantage over Kaspas in lower rainfall environments of between 5 to 10%. The best lines will be commercialized and available to growers by 2009-10.

Lentil varieties

Ten years ago lentils were expanding in area and two years of close to average rainfall (1995 and 1996) had created great optimism for lentil production in the Wimmera (average yields over 2t/ha) and potential for the southern Mallee. Since this time low rainfall and frosts have tempered these views for many. However, if predictions of a more favourable season eventuate, sound management strategies developed over the last 10 low rainfall years shouldn't compromise yield and quality in better years such as 1995 and 1996. For example,

- Avoid poor soils (poorly structured soils, subsoils high in salinity and boron) and use good seed.
- Know the best disease management strategy for your variety (lentil disease management guide, Pulse Australia website).
- Sowing early will maximise yield in most years but be aware of disease and lodging in years with average to above average rainfall. In general, sowing in Mid May in the Mallee and mid June in the southern Wimmera is early enough to achieve most of the benefits of early sowing.
- Increase stubble retention and reduce tillage where possible.
- Plan for good weed management and avoid crop injury by applying herbicides as recommended, taking into account soil and climatic conditions.
- Monitor and control insects during the season, particularly Aphids, Heliothis and Etiella.
- Harvest lentils as early as possible without affecting quality. Always be prepared for harvest to avoid rain or severe winds damaging mature crops.

In 2008, the ascochyta blight and botrytis grey mould resistant variety Nipper and the green lentil Boomer should be available for farmers (AWB Seeds). Nipper is best suited to the Wimmera where disease is more prevalent. Indications are that seed quality is favourable for a wide range of markets. Boomer is a broadly adapted, vigourous, large seeded green lentil that will offer the potential for Australia to develop a significant green lentil industry when prices for green lentils exceed that for red lentils.