A SNAPSHOT OF AUSTRALIAN PULSES

Reprints of pulse industry and market posters displayed at CICILS/IPTIC Convention, Brisbane, Australia 2010
The Australian chickpea industry

- Chickpea is grown in all mainland states. National crop production in 2008/09 reached a high of 378,000 tonnes.
- Is predominately desi types, with smaller production volumes of large kabuli types (>8mm) and small kabuli types (<8mm).
- Is the world’s No. 1 chickpea exporter with 90% of Australian chickpeas exported and supplying more than a third of desi chickpea traded internationally.

Farmers use the most advanced technology and equipment to produce chickpea of the highest quality, supported by accredited chickpea agronomists.

Pulse Breeding Australia (PBA) nationally coordinated breeding and quality program ensures that new varieties meet customer requirements.

Special emphasis is given to seed quality, increased disease resistance (especially ascochyta blight), yield potential and harvestability.

Australian chickpea is exported to more than 40 countries. The industry is committed to supplying chickpea with quality attributes tailored to these markets.

Important quality traits targeted by chickpea breeders are:
- Large and uniform seed size,
- Lighter coloured seed coat,
- Splitting quality of desi chickpea,
- Hydration and cooking characteristics of desi and kabuli chickpeas.

It takes 10 years to breed a new chickpea variety. Close contact with the market is required to anticipate likely changes in consumer preference.

Pulse Breeding Australia (PBA) breeders and chemists work closely with processors and marketers. Ensuring that the high quality of Australian desi and kabuli chickpea is maintained and further improved with new varieties.
The Australian faba bean industry

- Has grown steadily since its beginning in 1980, spreading to all states.
- Is among the top five producers in the world.
- Is the world’s number one exporter supplying a third of faba beans traded internationally.

The Pulse Breeding Australia (PBA) nationally coordinated breeding and quality program ensures that new varieties continue to meet consumer requirements and are more productive. Special emphasis is given to breeding for seed quality, increased disease resistance and yield potential.

Australian faba beans and broad beans are exported to more than 30 countries. The industry is committed to supplying faba beans with quality attributes tailored to these markets.

Important quality traits targeted by breeders in Pulse Breeding Australia (PBA) are:
- Uniform seed size,
- Light coloured seed coat,
- Splitting quality,
- Hydration, cooking and canning quality,
- Minimising levels of seed discolouration.

It takes 10 years to breed a new faba bean variety therefore we must be able to anticipate likely changes in consumer preference.

 Breeders and chemists work closely with processors and marketers to ensure that the high quality of Australian faba bean is maintained in new varieties.

New varieties covering a range of seed sizes and types are being developed to suit all markets and end-uses.
The Australian field pea industry

- Expanded rapidly from the mid 1990’s to be a major pulse crop.
- Is widespread across Australia’s southern cropping zones.
- Production is mostly of dun coloured type field pea (~90%) with some minor production of blue and white types.
- Is the leading producer and exporter of dun type field pea worldwide.

Australian exports of field pea go mostly for human consumption. The Australian field pea industry is committed to supplying the quality required by these markets.

Market specifications targeted by research, industry and breeding programs relate mostly to:
- Whole and split grain size, shape and colour,
- Whole grain milling properties,
- Grain canning quality.

Market signals on quality are used by Pulse Breeding Australia (PBA) breeders to develop more suitable and marketable grain types for industry.

Feedback from end-use markets on Australian field peas is important to the further development of quality Australian field peas.

National breeding and evaluation aims to provide growers with well adapted varieties.
The Australian lentil industry

- Lentil production in Australia has expanded from less than 1,500 hectares in 1994 to peak at over 150,000 hectares in 2006. Droughts have hampered more recent production.
- Australia is a major exporter of high quality red lentil to all parts of the world.
- Production is predominantly on neutral to alkaline soils in winter cropping areas with 350 – 500 mm of annual rainfall.
- A favourable growing environment, good crop management, and care in handling and processing ensure a quality lentil product for consumers.

National breeding of lentils by Pulse Breeding Australia (PBA) aims to increase lentil production in Australia through the release of superior high quality red and green lentil varieties.

Australian lentil is exported for human consumption in more than 40 countries.

The lentil industry, including scientists, agronomists, farmers, processors and marketers, is focused on producing premium quality lentils to meet specific consumer needs.

Improved physical seed characteristics and processing quality are major objectives of the Pulse Breeding Australia (PBA) lentil breeding program:

- Size, shape and colour of grain,
- Splitting yield and colour of splits in red lentils,
- Cooking characteristics in green lentils.

The Australian lentil industry is working closely with consumers to improve the reliability and quality of Australian lentils.

Extensive trials are conducted throughout current and potential production areas.

New varieties and farming systems are assisting growers to produce lentils reliably and in drier environments.

Trade displays and delegations provide valuable information to the breeding teams.
The Australian lupin industry

- Production is predominantly Australian Sweet Lupin (L.angustifolius).
- A lesser quantity of Australian Albus Lupin (L.albus) is grown and exported.
- Lupin is a valuable crop in the farming systems on deep sands and acidic soils of western and southern Australia.
- Modern disease resistant varieties and effective agronomic practices ensure Australian farmers produce high quality lupins.

AUSTRALIAN LUPIN MARKETS

- Australian Sweet Lupin (L.angustifolius) is well established in World markets as a valuable, clean livestock and aquaculture feed source.
- Australian Sweet Lupin is now finding its way into global human foods because it improves the nutritional value, health benefits and consumer acceptance of a variety of foods.
- Australia is the largest supplier of quality, large-seeded, Australian Albus Lupin (L.albus) to the Middle East.

Pulse Breeding Australia (PBA) nationally coordinated breeding program ensures that all new varieties meet stringent quality requirements.

Screening of new cultivars and testing of commercial production is conducted to ensure accepted levels of alkaloid content in Australian lupin.

Recent, and significant, medical, nutritional and functional research has enabled lupin and lupin derivatives to be used as food additives in various baked products, drinks and sauces.

Lupin based foods have been shown to reduce blood glucose, lower blood cholesterol and blood pressure, reduce energy intake and suppress appetite by rendering a feeling of fullness.
**The Australian mungbean industry**

- Average annual production of 50,000 tonnes with a growing season from September to April.
- Australia produces large and small seeded shiny green gram, black gram and dull green seeded gram.
- Export grain of the highest quality is achieved by infield agronomic support being provided to the grower by a network of accredited mungbean agronomists.
- Mungbean producers, supported by the Australian Mungbean Association (AMA) have access to the best available production, marketing and industry information.

Breeding of varieties which produce maximum quality and productivity under dryland and irrigated, spring and summer growing conditions:

- High grain quality (evenness of seed size, colour, and low hardseedness),
- Evenness of flowering and maturity,
- High yielding,
- Enhanced plant architecture and disease resistance.

**Australian grown mungbeans have quality written all over them!**

Broadacre production.

Shiny green gram.

Black gram.

Dull green gram.

Quality Australian mungbean is exported to over 35 countries for use as:

- Sprouts, whole grain, splits and flour to make dhal,
- Soups, porridges, curries and additives for various spiced or fried dishes,
- The flour is used to make vermicelli glass noodles, pappadums, breads and biscuits.

The processing and grading of Australian Mungbean is primarily undertaken by members of the Australian Mungbean Association (AMA) ensuring that:

- The highest level of food safety is maintained across the entire industry,
- Quality assurance systems are in place for improved traceability,
- A high level of market confidence is maintained in Australian mungbean.

**Australian Mungbeans are gravity graded to segregate premium quality.**

96 percent of Australian mungbeans are exported.

Premium Australian mungbean products.
Contact details
For further information, contact either Pulse Australia or the appropriate person listed below as the principal breeder in each pulse crop. Australian pulse breeding is nationally coordinated and consists of a number of breeders and scientists from many disciplines. The people listed below will assist or ensure that enquiries are forwarded to the most appropriate person within the pulse industry.

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