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SABRE BARLEY PROGRAM SHOWS THE WAY

By Geoff Thomas, SAGIT Project Manager

The SABRE Barley program funded in part by SAGIT has not only led to new varieties for mainstream and niche markets but has increased our understanding of the agronomic factors affecting yield.

Take feed barley. Feed barley is a key component of the SA grains industry, with feed varieties contributing approximately 750,000 tonnes of production per annum. The feed market shows growth, whilst the malting market is generally fairly flat. Yes, feed barley attracts a lower price but it allows growers to manage challenging agronomic constraints with a low input, low maintenance cropping option.

The current project has contributed to the development and commercialisation of two new feed barley varieties for South Australia. Capstan was developed specifically for high productivity regions and is well suited to aggressive nitrogen management targeting very high yields and offers very short straw facilitating improved stubble management. Maritime provides growers a significant yield improvement on manganese deficient soils and a major advance in physical grain quality that is of benefit to growers struggling to achieve minimum test weight specifications. Both varieties are subject to \$1.20 end point royalty, part of which returns to SAGIT for investment in further research.

Shochu grade barley is a high value market for SA barley growers. The current project has evaluated agronomic and environmental factors influencing pearling quality and subsequent shochu production. Key management factors that can improve the probability of growers achieving the tight shochu quality specifications have been identified and include such things as time of sowing, seeding rate, nitrogen management, rotation and disease and weed control.

Hulless barley represents a small niche within barley production, however the University of Adelaide barley program has pursued the development of improved hulless varieties as a strategic direction that could potentially offer growers high value returns through human food and novel end-use applications. Potential hulless varieties with novel starch properties are currently in the pipeline. Resolving production issues continues to be a key challenge as work progresses towards launching high value hulless barley varieties.

What this highlights is the importance of running agronomic studies along side of breeding programs, so that farmers not only have better varieties but packages of information with regards what is required to get the best out of those varieties. Getting this information is critical to not only making a profit, but also in managing risk by using a range of varieties and on farm practices.

Getting this on-farm information is not just the job of the plant breeders but a challenge for all consultants and farm groups.