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Cereal rye for high rainfall areas

By officers of the Department of Agriculture, Manjimup

In the high rainfall areas of the South-West, cereal rye yields more than wheat or barley, and is equal in yield to oats. This has been shown by trials done by the Department of Agriculture over the last few years.

The crop is well suited to these areas as it is tolerant to disease including root rot, septoria, rust, smuts, barley yellow dwarf virus and take-all. It establishes more strongly than other cereals due to prolific early growth. This improves chances of establishment in the weedy conditions common in high rainfall cropping situation. It is also tolerant to waterlogged conditions.

Cereal rye has proven to be more reliable than the other cereals for late sowing. Crops have been sown as late as late August and still yielded better than one tonne per hectare with a dry finish to the season.

On the poorer soil types, such as sands and sandy gravels, it can be expected to yield better than the other cereal crops.

Limited observations suggest that the stubble is palatable to stock but the value of stubble for grazing is yet to be determined.

In most farming areas where the annual rainfall is less than about 750 mm, cereal rye is generally lower yielding than wheat and therefore less profitable. In these drier areas, the main place for cereal rye with present varieties, is on soils subject to sand blasting.

Feed value

Cereal rye is comparable in energy content to wheat and barley, but its protein content is higher (12 to 14 per cent). This allows savings in rations requiring protein concentrates such as meat meal and lupin seed.

A recent feeding trial with at the Department of Agriculture's Medina Pig Research Station has confirmed that rye is a good substitute for barley. Rations were 18 per cent crude protein, made up of lupin seed, meat meal, a mineral and vitamin premix, and varying proportions of barley and cereal rye.

The barley-based rations required more of the protein concentrates than the cereal rye rations, as the barley was only 9.9 per cent crude protein, compared to 12.1 per cent for the cereal rye.

The ration was increased from 1.5 kg per pig each day at the start of the trial (about 30 kg liveweight) to 2 kg at the finish (80 kg liveweight). Results of the trial showed that cereal rye and barley were comparable in growth rate, feed conversion efficiency, backfat depth, eye muscle area and dressing percentage (see table). Rations with combinations of rye and barley also gave comparable results.

By using the cereal rye as a replacement for barley, the ration was cheapened because of the reduced requirement for protein supplements such as meat meal and lupins. However, no tests have yet been done with weaners and therefore at this stage, cereal rye should be used with caution if fed to young pigs.

Cattle

Cereal rye may be an alternative to oats and barley in concentrate rations for feedlot steers or dairy cattle. However, this has not been tested, and at present it is recommended that not more than 40 per cent of a ration for cattle should be cereal rye.