Why pork producers should consider the value of triticale

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In Australia, the triticale price is generally established through negotiation in a specific market as opposed to other grains where price is less obscure, for example, published as daily and forecast prices. Mostly, grain growers are price takers so may consider market price history and forecasts when deciding to grow a particular crop. In the case of triticale where such information can be difficult to obtain, uncertainty associated with price and a reliable market can result in grain growers selecting alternative crops. One way to reduce price risk associated with triticale is to link its price to wheat. There is evidence in the literature (e.g., Beltranean *et al.*, 2008) that suggests that when triticale is substituted for wheat in a diet, pigs do not reduce their feed intake or weight gain, and feed efficiency may improve. There may be reason therefore for the triticale price to be equivalent to the price of wheat (whatever grade is available to pork producers) because pork producers may not be worse off if they buy either. However, most often in Australia, pork producers expect to pay a lower price for triticale than wheat.

The effect of a lower price is relevant for grain growers in terms of gross margin. Typical variable costs for growing wheat and triticale in wheat belt regions of Western Australia were incorporated into a desktop experiment. By taking a May 2013 daily price for ASW wheat, \$306/t, and reducing it by \$20/t and \$5/t (to simulate representative triticale prices), an estimation of the percentage change in gross margin from growing triticale instead of wheat can be made for ten different yield levels. A scenario involving reducing the wheat price to a level whereby growing triticale becomes economically unviable was also investigated in this study.

Under this arrangement and given the price of wheat was \$306/t, growing triticale, priced at \$286/t, instead of wheat would result in a percentage drop in gross margin for the grain grower from around 10% to 18% if yield for each crop was the same and below 2t/ha (Figure 1). If the yield was instead above 2t/ha, or if the price of triticale was instead reduced to \$301/t, the percentage fall in gross margin from growing triticale instead of wheat would be minimal. When a lower base price of \$220/t for wheat was considered, triticale priced at \$200/t combined with yields below 0.9t/ha would result in an economically unviable crop. If yield was greater than 0.9t/ha, the gross margin would be between 15% and 70% lower than that of wheat at the same yield level. If triticale was instead priced at \$215/t, growing it instead of wheat in low yielding regions would again be questionable whilst in higher yielding areas a grain grower may consider it if there were sufficient agronomic benefits from growing triticale instead of wheat.

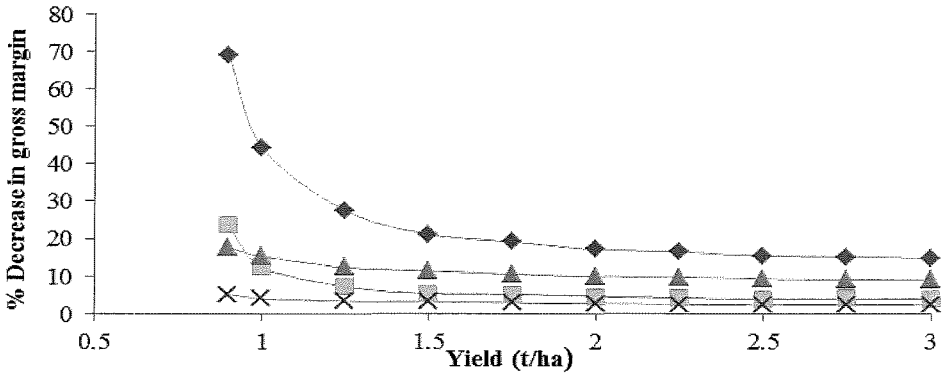

Figure 1. *The percentage decrease in the gross margin for each yield level when there is a reduction in the price of triticale from: \$306/t to \$286/t (▲); \$306/t to \$301/t (×); \$220/t to \$200/t (◆); and \$220/t to \$215/t (▣).*

Agronomic benefits such as, a 2% yield advantage of triticale over wheat could induce grain growers to select triticale if the wheat price was high (\$306/t) and the discount for triticale only \$5/t. However, the 12% yield advantage necessary to compensate for a discount of \$20/tonne when wheat price was low (\$220/t) would likely be unobtainable for grain growers. The results from this paper suggested that it would only be economically rational for grain growers to grow triticale when the price relative to wheat is similar, and/or triticale yields, are relatively high. To ensure future supply of triticale, its value in pig rations should be considered if pork producers wish to be proactive in negotiating a price with grain growers that will induce them to grow it.

BELTRANEAN, E., SALMON, D.F., GOONEWARDENE, L.A. and ZIJLSTRA, R.T. (2008). *Canadian Journal of Animal Science.* **88**:631-635.