

The changing face of the wheat industry

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Preamble

The 1986 Annual Report of the NZ Wheat Board opened with a wry comment that symbolised the decade "Two not unusual features characterised the year ended 31 January 1986. There were significant harvest problems and further changes to the structure and organisation of the industry". Growing or harvesting problems with wheat are significant every year somewhere in NZ, but the 1980s saw revolutionary changes in the way in which the wheat industry was organised and operated - changes which some sections of the industry are still coming to grips with.

The Changes

Before detailing the main changes it would be instructive to consider the industry as it was prior to deregulation in 1987 so that the magnitude of these changes can be put into perspective. In 1982, as for the previous seventeen years, the NZ Wheat Board aimed to promote self-sufficiency in wheat production and processing, and encourage wheat growing in NZ. The Board controlled the prices paid, and the purchase and distribution of all wheat and flour products. It also administered a flour quota system under which production quotas were issued to mills and traded between them. By 1987, most of the quota was controlled by three milling groups. The flour quota system, pooled wheat pricing, and transport cost averaging allowed the siting of flour mills close to the major domestic markets. Approximately 80% of domestic milling wheat was produced in the Canterbury region, while 55% of the milling capacity was in the North Island.

In its quest to promote and organise orderly development of the industry and greater efficiency the Board divided the 1982 harvest into two categories - Category A with MDD score ≥ 15 and Category B with MDD scores of 12-14. As the Board was the sole purchaser of wheat, the consequences were: 1. that growers aimed to maximise yields, and did not consider quality, so long as Category A was achieved, and 2. that flour millers and bakers claimed they were forced to accept sub-standard wheat and flour.

In conjunction with change to other aspects of the economy, the newly elected Labour Government decided changes to the wheat industry should be considered. The effect of these decisions was that over a three year period the industry had to move from a very controlled situation to an essentially completely free-market situation. At the same time, world wheat prices fell due to oversupply and subsidised production in Europe and North America. As a result the NZ wheat price dropped, putting great pressure on wheat growers.

In contrast to 1982, when all transactions involved the Board, in 1992 millers contracted directly with growers who were paid according to the quality of their crop. Similarly, flour users have their own specifications which millers must meet. The market signals are very direct and major changes in the industries have resulted. These changes were in:

- production volumes and areas
- industry concentration
- quality of production
- segmentation or specialisation
- industry communication.

Production trends

Although wheat volumes required by the NZ market have remained fairly steady, the overwhelming trend in NZ wheat production has been down and it is hard to ascertain whether a stable domestic production level has now been reached. Wheat imports, mainly from Australia, have risen substantially to around 200,000 tonne per annum, representing about two thirds of the country's bread wheat requirements. Indications for 1992/93 are that NZ grown wheat volumes will be at least as high as the previous two seasons, perhaps higher. Nonetheless production is likely to be only about half that of the pre-deregulation era and more like 150,000 tonnes than 200,000 tonnes.

The removal of cross-subsidies for transportation has reduced production in areas distant from mills, ports or consolidation points. Production is now largely concentrated in Canterbury and the lower North Island.

The decline in NZ wheat production has been attributed to the inability of the NZ product to compete with imported wheat in terms of quality consistency and

price, especially in the North Island. In the deregulated trading environment, food processors have tightened their flour specification requirements and because of a lack of product consistency millers have not always been able to meet these requirements using NZ wheats alone. As well as this, the cost of transporting wheat from the South Island to North Island mills has been high, and North Island mills have been able to land wheat from Australia at more competitive prices.

Industry concentration

Flour milling and baking are now dominated by trans-Tasman interests with three large companies involved. Some significant independent bakeries have been taken over by the major players but the development of in-store bakeries has partially counterbalanced this. Significant

over capacity in flour milling still remains. In wheat growing, only the committed growers remain because specialist skills and better storage facilities are required.

Quality of production

The improvement in the quality and consistency of NZ produced wheat is the major surprise and technical achievement resulting from the de-regulation. Wheat quality jumped rapidly to a new plateau following the de-regulation. Lindley (1989) pointed out that over a five year period the average loaf volume increased by about 20% with enhanced texture and crumb feel. There are three major reasons for the dramatic changes shown in Figure 1 - a pricing system recognising and rewarding quality, an aware group of millers and growers who manipulated management techniques to produce a quality

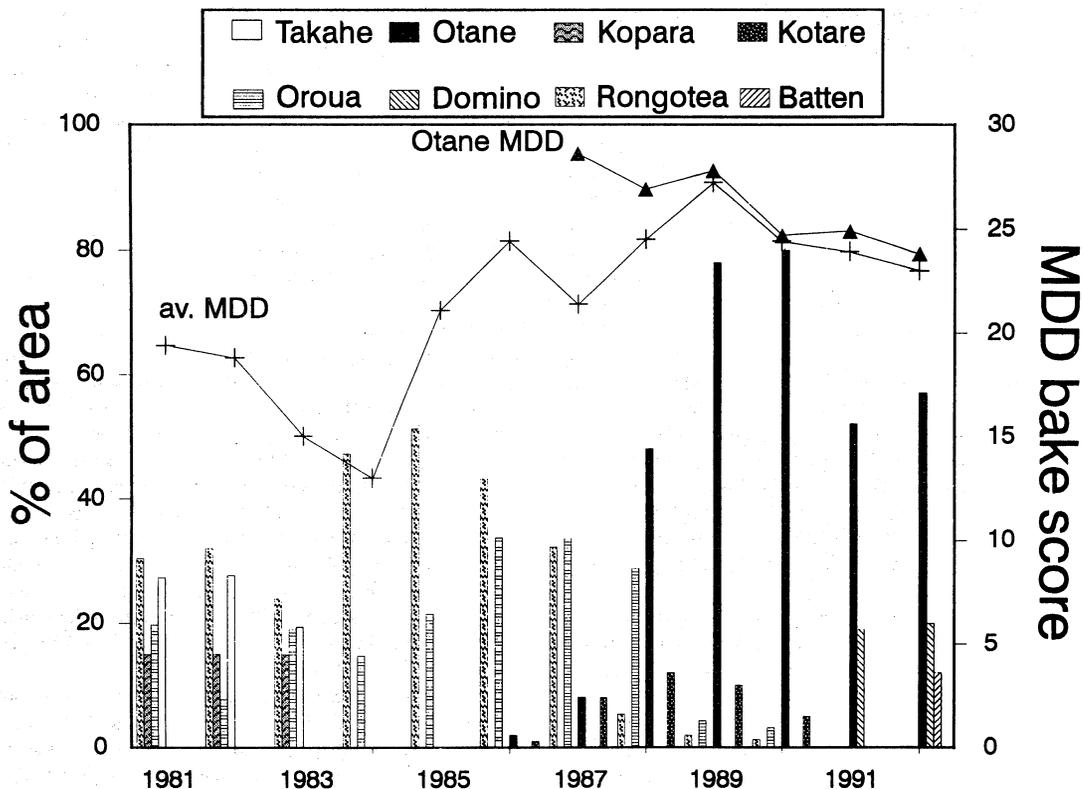


Figure 1. Change in the cultivars sown, the relative area sown and the quality of grain produced over the last decade.

crop, and the release of better quality cultivars. The figure shows the quality boost coincident with the release of Otane, but it does not show that with improved management, good quality crops are now being produced even in unfavourable seasons. These improved cultivars and growing practices have led some in the milling industry to comment that there is now no need to import wheat just to boost quality. In fact, some bakers are having difficulty handling the strength of some doughs now produced from the grists of domestic wheat.

The quality issue which still needs addressing is product consistency. Most food processors' product specifications are met by millers using blends of wheat in the grist. Millers need consistent supply of the right quality wheat for each particular blend.

Segmentation or specialisation

Payment for quality and superior cultivars have increased specialisation in the industries. No longer are there large quantities of undergrade milling wheats which can be used for feed or for biscuits. Special purpose cultivars, and growers who specialise in these, have emerged. Similarly, adapted durum wheats are being grown for pasta and coloured wheats for multi-grain breads.

Industry relations

Not surprisingly the removal of the industry referee caused considerable friction in the industry overall. There was considerably more heat than light generated as spokesmen quoted entrenched positions. There can be little doubt that these attitudes, as well as the state of the domestic and international economies contributed to the falloff in domestic production. Now, however, there are marked changes in attitudes with industry groups realising they share more in common than they had realised. The process leading to the "Strategic Partnership" document is a watershed in industry relations. There are very encouraging signs for the future.

In its strategic plan the industry is aiming to achieve a minimum annual domestic wheat production of 200,000 t by maximising the use of NZ wheat in wheat based products sold on the domestic market and by developing niche markets offshore. Key factors in this industry rebuilding process will be quality assurance and cost.

Conclusion

Wheat started the decade as the cornerstone of the arable crop rotation. It is now moving steadily towards the status of a break crop included in a rotation of more lucrative or more intensive crops, even though a high quality wheat crop will certainly contribute well to the arable cropping budget.

Appropriate management of good cultivars is good business for millers as well as for farmers. The clear passage of market signals from the flour user back down the production chain gives the industry a base from which it may develop. The fact that it has this base is a tribute to the expertise and tenacity of those involved.

Crop & Food Research will continue to be involved in research to facilitate this development with programmes in wheat breeding and cereal science, and processing.

It is too early to say clearly how successful the deregulation has been - there have been significant pluses and minuses. History will judge the deregulation as inevitable given the circumstances of the time. I believe it will also eventually judge it a success although there is considerably more work ahead of all of us if we are to ensure that this is so.

Reference

- Lindley, T.N. 1989. New Zealand's Free Market: The Effect on Domestic Wheat Quality. Proceedings of 1989 Cereal Science Conference