QUALITY REQUIREMENTS OF THE NEW ZEALAND MARKET FOR WHEAT

A.G. Beadle,
Deputy Chairman, New Zealand Wheat Board.

The Wheat Board's prime function under the Wheat Board Act is to market wheat and flour. Other functions are to encourage wheatgrowing, to encourage the use of domestic wheat and to promote the efficient development of the wheatgrowing and flourmilling industries. This is not an easy role, particularly when the Act also requires the Board to buy all milling grade wheat offered to it, whatever its quality so long as it reaches the minimum standard and to find a market for that wheat with the Board's costs of operation being met out of the price the user pays for flour.

Wheat/Flour Quality

The years 1976/77 saw a high degree of market dissatisfaction with the quality of domestic wheat and flour. A major contributor to this situation was the high proportion of Karamu wheat in the crop. Since then, there has been a marked improvement in market satisfaction largely through

(a) the responses of the wheat growing and flourmilling industries to the Board's programme of wheat/flour quality improvement.
(b) the reduction in the proportion of Karamu in the crop.
(c) the consistently good standard of quality from Takahe wheat in Southland.
(d) the import of between 30,000 and 50,000 tonnes of Australian wheat in each year.
(e) the outlet for the lower scoring milling grade wheat provided by the feed trade.

In the absence of this combination of factors, market pressure could have resulted in the Board having to provide imported wheat to meet quality as well as quantity deficiencies in the domestic crop.

If, in the future, the Board is to retain the market's support for domestic wheat and flour that has been built up over the past three years, it will need to continue to meet satisfactorily the market's quality needs. Now that the price for domestic wheat is linked to the f.o.b. price of Australian ASW, wheat and flour users will expect a similar linkage in the quality area ***without having to pay a higher price for it.*** Also, if economic association with Australia is to become a reality it must mean that ***in the longer term quality and price*** will be the determining factors in the users' choice of domestic or Australian wheat.

The Market's Quality/Quantity Requirements

What is quality from the market's point of view? There is no single answer. Like beauty, it is in the eye of the beholder. What would be very acceptable for bread baking or starch production would not be at all satisfactory for sweet biscuit manufacture and vice-versa.

The Category A sector of the market — bread baking, starch, cracker biscuits etc — provides the largest demand with currently an annual consumption of about 300,000 tonnes. Bread baking accounts for close to 60 per cent of the total Category A consumption. The Category B sector — sweet biscuits, dog biscuits, puff pastry, cakes etc. — at present takes about 10,000 tonnes. Also, the feed trade requires about 50,000 tonnes of wheat a year but this can vary with the availability and price of alternatives. In total, an annual market for about 360,000 tonnes of wheat.

Wheat Supply to the Market

It is not entirely realistic to take a single view of the quality of the total wheat crop. Quality varies from district to district. Distribution costs limit the movement into and out of areas for quality reasons; different districts are better placed to supply different sectors of the market. However, the nature of the problem can be most easily illustrated by this single view.

In an average season, based on 1978/80 experience, we could expect from a crop of 360,000 tonnes about 95 per cent (340,000 tonnes) of milling grade wheat in the proportions of about 80 per cent (say, 270,000 tonnes) suitable for Category A purposes and about 20 per cent (say, 70,000 tonnes) suitable for Category B uses. This would mean, in relation to present market demand, a Category A shortfall of 30,000 tonnes and a Category B surplus of 60,000 tonnes.

About 30,000 tonnes of Category B wheat could be expected to be absorbed by the feed trade leaving about 30,000 tonnes to be used for Category A purposes with a resultant adverse effect on overall Category A quality. However, given wheat varietes which would provide a Category A/B milling grade mix of 85/15 per cent (290 000/50,000 tonnes) the problem would be substantially reduced. Providing the feed trade continued to take about 30,000 tonnes of Category B wheat, the additional 10,000 tonnes could be absorbed by an expansion of the market for Category B wheat. The Board is at present working with flourmills on this market development.

If we had wheat varieties which, under average seasonal conditions, would consistently provide at least 85 per cent Category A wheat in our major wheatgrowing districts (Canterbury and Southland) and other varieties which, in Otago/Marlborough/North Island, would provide the proportions of Category A and Category B wheat required from those areas. The Board believes that the different quality needs of the market could be met satisfactorily from the domestic wheat crop. In addition, this degree of consistency in the domestic wheat supply would be a major step towards ensuring consistency in flour production. From a flour user's point of view, flour consistency and flour quality are of equal importance.

Wheat Quality Consistency

At this stage of the development of our wheat and wheat based industries, the major issue as I see it is how to meet the market's quality needs consistently. The problem is not so much in the best quality performance of our standard wheat cultivars (Takahe, Kopara and, on 1981 performance, Oroua and Rongotea) but in their quality consistency from season to season. We cannot expect, with our variable seasonal conditions, the degree of quality consistency obtainable, say, in Australia but surely our consistency can be improved? The quality consistency, in Category A terms, from our main producing districts in the past three seasons was as follows:-

	— Category A% —		
	1979	1980	1981
Southland	92	93	94
Otago	92	90	64
Canterbury	68	77	88

In Southland, in those years we have had both consistency and a high percentage of Category A quality — thanks mainly to Takahe.

In Canterbury, there has certainly **not** been consistency but there has been an improving Category A quality percentage largely as a result of a substantial reduction in Karamu; the satisfactory quality performance of Kopara (except in North Canterbury); and the introduction of Oroua and Rongotea which in this season have lived up to their trial quality performances. But why has there been such a quality collapse this year in Otago?

If we could confidently rely in the future on seeing, from Southland, a continuation of recent quality and consistency; from Canterbury, something approximating its 1981 season's quality plus something approaching Southland's consistency; from the feed trade, a continuation of the take-off of the surplus Category B wheat (this won't happen if feed wheats are released); then I do not believe there need be a real problem in meeting the market's present **needs** although to meet its future **wants** will certainly require further developments.

So, as I see it, the issues to which agronomists and wheat breeders should now be giving their attention is not the suggested quality/quantity conflict but:-

(a) the development of **consistency** in our **standard** wheat cultivars at about the general 1981 Category A **quality** and **yield** levels.

(b) the production of new wheat cultivars suitable for particular districts and for particular end uses. With the ability we have in our agronomy and wheat breeding areas, I am confident the solutions can be found.