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MARKET PROSPECTS FOR W.A. WHEAT

By W. J. TOMS, Acting Chief, and J. A. PARISH, Adviser, Wheat and Sheep Division.

WITH the Western Australian wheat industry valued at $100 million per year and subject to production restrictions, can market prospects be improved?

What types of wheat should we produce? Can we increase sales by segregating specific types from the present crop? This article discusses the changes in W.A. wheat production that would be necessary to suit specific markets.

The past decade

Before 1960 most West Australian wheat was sold as a filler wheat for bread-making blends. Assessed in terms of quality for traditional bread making, most of the crop was too low in protein.

Our wheat had some good qualities such as low moisture level, high flour extraction rate, and white flour, but the bread-making quality was inferior to prime grades from Canada and the U.S.A. We competed because our price was less.

During the 1960s, with large sales to China, Japan and India, it was realised that the bread-making quality of the crop was becoming far less important. Although the exact uses of our wheat were uncertain, these countries were not using it to make conventional bread. The wheat qualities preferred by our major customers were also uncertain.

The position was somewhat different in other States, where a smaller proportion of the crop was used for purposes other than bread making.

Market research

In order to obtain information about the quality requirements of Japan, one of W.A.'s best customers, one of the authors (J. Toms) recently was sent to that country.

As a result of this visit a number of recommendations were made to the Department of Agriculture and the State Wheat Advisory Committee. Although these recommendations are expected to cater for Japanese and Chinese requirements, the needs of all other customers will have to be taken into account in assessing policy for wheat quality.
Future prospects

Wheat quality is mainly determined by the variety grown and the protein level of the grain. By growing the right variety on areas likely to produce a certain grain protein level and keeping the classes separate, Western Australia could produce a number of types of wheat each suitable for a particular end use.

Based on the present information, future markets could be available for:

1. A hard wheat of good bread-making qualities, separated from other wheats on the basis of variety and visual hardness or vitreousness. The protein level of acceptable loads should be about 10.5 per cent. and over.

2. A predominantly soft wheat of intermediate protein level (9.5 to 10.0 per cent.) of good quality for Japanese noodles. Such varieties should then be suitable for Chinese steamed bread.

3. A biscuit wheat from low protein areas, with a protein level of about 9.0 per cent.

4. A cake wheat from very low protein areas, with a protein level as low as possible and preferably below 8.5 per cent.

Such grades could reasonably be produced with the various soil and climatic conditions existing in W.A. The quantities of such grades now being grown are being assessed by continuing surveys.

Quality zones

Previous surveys of grain protein levels by one of the authors (J. Parish) and officers of Co-operative Bulk Handling Co. Ltd. have indicated three main zones in the State (see map), giving grain of different protein levels from “high” in zone 1 to “low” in zone 3.

There is still a considerable amount of grain of “low” and “medium” protein level produced in zone 1, and wheat grown on much of the fertile heavy land in zone 2 will produce high protein grain, but the zones indicated broadly define the protein levels that can be produced.

It is clear that any biscuit or cake wheat should be confined to zone 3, and even here the most fertile situations would be less suitable.

In zone 2 prime Japanese noodle wheats such as Gamenya, which would also be suitable for Chinese steamed bread, could be grown. These wheats should be “soft” at protein levels of about 9.5 per cent. This would be an f.a.q. class.

On the more fertile soils of zone 2, good bread wheats such as Falcon and Bokal could be grown, but only if these could be separated into a “hard” class. (Bokal yields the same as Gamenya, but is of considerably better bread-making quality. A possible defect is low bushel weight.)

In zone 1 the excellent bread-making wheats such as Falcon and Bokal could be grown, as well as types like Gamenya. Gamenya should be grown on the less fertile soils. The Falcon and Bokal type wheat would only be grown on soils fertile enough to generally produce hard grain, and this would be segregated into a hard class. The remainder of the wheat in this zone would go into the f.a.q. class.

In so far as this remainder was mottled and reject from the “hard” category, it would improve the quality of the f.a.q. for bread making, but would reduce its value for Japanese noodles. By growing the hard wheats such as Falcon and Bokal only on the fertile soils, the amount of mottled grain produced would be kept to a minimum. Alternatively, mottled Falcon and Bokal grain rejected from the “hard” class could be offered to local millers, or segregated for overseas sale.

This separation into three zones would give growers in the State an opportunity to make use of natural conditions to produce classes of wheat which would fit into the pattern of the world’s wheat trade. By improving the quality of the crop for different end uses, Western Australia should be in the position of being able to sell more wheat.

It should be noted that for many end uses for which we expect to sell wheat, the eastern wheatbelt is unsuitable and wheat of the required quality can only come from “high” and “medium” rainfall areas. Wheat from the eastern wheatbelt is most suitable for bread making, and large quantities should always be required for this end use.

These suggestions are for long-term consideration. Suitable wheat varieties for some end uses must be developed. Suitable methods for segregation must be devised. If accepted, these proposals would involve additional handling costs for the crop. On occasions, the variability of seasons could cause some problems in regard to constancy of supply, so that reserves may have to be carried.

Despite these difficulties, good long-term market prospects for W.A. wheat are dependent on us carrying through such a plan and modifying it as more information becomes available or as conditions change.

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