

2. QUALITY CONTROL AND REQUIREMENTS

Convenor - R. Rees

Lentils - New Zealand is a few years ahead of Australia in the commercial development of lentils. However, we should be changing the target market away from the third world to the developed world, we should be aiming for a machine dressed product for Europe and the United States.

Lentil colour is an issue at the moment, particularly for the traditional markets that already know lentils. They recognise a red colour, they want that red colour, they don't like other variables. There is great variation in lentil colour and there are opportunities to introduce new lentil colours to a broader market, the less traditional markets.

The size of lentils is important in cooking. Shorter cooking times are an advantage: small lentils and split lentils lend themselves to more efficient cooking. They compare well with chickpeas which have to be soaked overnight or they take a lot longer to cook.

Chickpeas Desi chickpeas are a bulk market for third world markets so I prefer a graded Kabuli product which may go to Europe. Farmers have less control over quality than processors. Lentils and chickpeas can be considerably improved by processors who have an opportunity for adding value for the European and United States markets by dressing and grading.

There is a grading system in place for field peas but the volume New Zealand is exporting is very low. Why aren't you producing more volume? The markets are there. Is the grading system a deterrent to the development of the stock food market? If it is, then what is needed is a concentration on the benefits of developing our stock feed industry and to then to look at yields and competitive prices. The whole question of the place of feed grains on the farm, needs consideration.

Another question which arose was is the grading system relevant to the export system? Has it cut you out of the stock feed export market, has it stopped you looking at other options like chickpeas and lentils for the export market?

The group felt that we need to work much more closely at the retail level. What is happening with green peas at the moment is good in that you are working to the consumers specification for size etc.. There are a

range of countries, particularly the newly industrialized countries who are looking for more and more retail products as their income rises quickly. The New Zealand Dairy Board perhaps, is an ideal role model for you to not only use, but to work with - to look at the way they have expanded their distribution systems. Perhaps as an industry you should work with a company like Watties, that has access to retail distribution systems. What you then have to do is expand your range of products to meet the needs of the consumers who use that system.

The obvious need we identified was for something like the establishment of a New Zealand Grain Legume Commission or Association, where there is a lot more direct marketing input by all members of the trade. There is an information problem, not only a marketing information problem but a technological information problem. I realise that it is difficult to get together as a group but the group believe that it would be profitable to look at the establishment of something like what the United States has.

Marketing information is lacking. You need to look at the channels of communication so that you know at all times what the top five grain legume opportunities are. Because the industry is changing at such a rapid rate the whole industry needs to be on top of the volatility, understand what is causing it, what's happening with Indian policy for example, what's happening with European policy - are the markets still open, are the market rumours fact or fiction? You must aim some of your resources right through the production and marketing chain.

Lastly, what needs to be encouraged is the market niches. You have an opportunity, viable quality standards in place, you must work to explore some of those. Work towards the retail market, work towards the fresh vegetable market. These products are available. It requires R & D and someone must picks up the tab for that or lobby government to help with the cost. A New Zealand Grain Legume Association may be a start, a levy on producers may be another way. But certainly if Coca Cola were in this industry, they would be taking 10 % off the top for R & D.

Question: In terms of quality of product, what advantages would there be to the New Zealand industry, in farmers changing from the current blue pea type to the Australian dun type?

Answer: I would not recommend it because you would be reducing your value. I would prefer to look at possibilities of expanding your production of the blue peas and sending them out in bulk particularly to the Indian sub-continent. I think that the United States will recognise, in the not too distant future, that the old advantage of containerised shipping of blue peas may be in its last days.

Question: There's a tail end of the blue pea market that currently goes to stock feed but we can produce a quality product. The blue pea has less value than the dun pea in animal food because of high levels of trypsin inhibitors.

Answer: I am not a nutritional specialist but I am surprised to hear that. However, you are only looking at a small percentage of peas in the feed mix any way. We can introduce up to 30%.

Question: You can use the white Australian dun pea

like that but in New Zealand we would run into strife if we did it with the blue peas.

Answer: I would prefer a nutritionist to comment but perhaps the answer is to grow a white pea where you have got both a food market and a feed market. I think you would be a lot better off that way we are trying to move towards a white pea in Australia, we have too many green ones our current varieties.

Question: Do you know what the trypsin inhibitor levels are on local peas?

Answer: Medium-high. You get the whole range in tests from very low trypsin levels to very high. There was some work reported on this in a paper by D.C. Johns in the *Journal of Agricultural Science*.

Comment: Other grain legumes, lentils and chick peas, often ferment and that's very good stock food. Blue offal are not a good stock food but it's a very good adjunct to the stock food industry. The New Zealand maple has a 30 % stock feed market niche and there are advantages of moving into greater production of maples. Yellow peas, have a substantial market for stock food, but you must get high yield rather than quality.

3. UTILIZATION OF LEGUMES: THE PRESENT AND FUTURE

Convenor - G.P. Savage

Promotion: Legumes suffer from an image problem, they are not highly valued foods in western diets. The main problem appears to be a general lack of knowledge of how to cook and process them. People who do not attempt to use them often make the comment that it takes a great deal of time to cook them properly.

The presentation of baked beans ready to eat in tin cans is perhaps the most well known legume product on the market. The important feature is that they are presented ready cooked in a tasty sauce. All they need is to be warmed up and they are ready to consume. Variations on baked beans in tomato sauce, such as curried beans and Mexican beans, are beginning to be introduced but they are not regarded by the public as high value foods.

Lentils and beans are widely used commercially to thicken soups and sauces, but this does not use a large quantity of legumes. Growers and producers would like more to be consumed.

As far as western diets are concerned there appear to be a number of good reasons why more legumes should be introduced into the diet. The main reason for their inclusion is to reduce the amount of meat eaten. This would reduce the amount of saturated fat in our diets which is a goal for improving our diet. Legumes also contain useful amounts of dietary fibre which again should be increased in our diet. It is unfortunate that the processing of some legumes, e.g., legumes for human use, involves the removal of the testa which reduces the amount of dietary fibre in, for instance, split lentils. There is evidence emerging that some legumes contain good levels of saponins which tend to reduce blood cholesterol if eaten in sufficient amounts.

A considerable amount of work needs to be done to turn legumes into convenience foods. They need to be presented cooked and processed ready to eat. Their presentation in plastic pouches like the "boil in a bag" foods would greatly enhance their profile. They should be presented with different and exciting sauces.