The Other Side of the World

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or 5 weeks during October and November I had the opportunity of visiting grassland research centers and private farms in New Zealand, a country about twice the size of our Georgia on the other side of the globe in the southern hemisphere. The 3.5 million people are of English, Scots, and Irish ancestry with about 9% native Polynesian. New Zealand is noted for its magnificent scenery, volcanoes, geysers, glaciers, beaches, and gardens. The natural beauty of the environment has been well protected, resulting in pristine, unpolluted streams, lakes, and beaches with no advertising billboards or strip development to deface the landscape. New Zealand is also noted for its production of animal products from well managed grasslands, being the world's largest exporter of lamb, dairy products, and venison as well as substantial exports of beef, wool, apples, pears, and flowers. Thus, most of the land in the country is one rich green carpet of pastures with very little cropland other than for horticultural crops. This article will relate observations on grassland some agriculture in New Zealand and implications for Georgia.

What is the role of government in New Zealand agriculture?

None. No other modern country has as free an agricultural sector. However, prior to 1984, the conservative government presided over a heavily controlled economy with a nation deep in debt. Agricultural subsidies and government marketing agencies made farming very comfortable and profitable, resulting in inefficiency, waste, and high land prices. In 1984, the incoming Labor government surprised everyone by slashing all subsidies to agriculture and industry, cutting medical costs, sharply cutting agencies, government eliminating agricultural extension, and cutting taxes. Initially, there was chaos but over time the economy briskly recovered and government deficits were eliminated and debts were repaid. Today, New Zealand has a strong economy and the government is in excellent financial condition.

How are farmers doing in New Zealand?

This depends on the type of livestock production. Beef cattle farmers are doing badly as the beef price is so low. However, beef cow-calf production is a relatively small area as beef cows are mainly utilized to graze coarser forage and maintain higher quality pasture for sheep. Stocker beef and dairy calves are finished on pasture for hamburger beef. With 55 million sheep in the country, they are the main livestock enterprise. Both meat and wool prices have been low for several years but recently lamb prices have improved and sheep are profitable. Both the beef and sheep industries have invested little in research over the years and innovation has been lacking in meat processing, product development, and marketing. In contrast, the Dairy Board with assessments from dairy farmers has had a long history of strong support for research in production, processing, product development, and marketing. Consequently, the dairy industry, with nearly 3 million milk cows, is healthy. Export markets for cheese, butter, and dried milk continue to grow. Dairy farming is quite profitable and expanding, particularly on the South Island.

Since the national government closed down the extension service, the dairy industry has developed its own extension education and support programs for farmers. Deer farming is another very profitable enterprise. With about 1.5 million mostly red deer raised on high quality pastures, the industry continues to expand as the export market for venison grows in Europe and the USA.

A key factor in the New Zealand livestock industry

Often, it is said that New Zealand is lucky to have a kind mild marine climate that allows good pasture to grow all year. This is an oversimplification since climates vary a great deal in this small country. Some areas do have an almost ideal grassland climate but other areas have very dry warm summers with winter rainfall, other areas in the south have cold winters, and in the subtropical north they are plagued with the low quality warm grass, kikuyu. perennial season Regardless of area, the one overall factor seems to be that the emphasis is on low input production utilizing grass-legume pasture as the sole source of nutrients for the grazing animal. This means no grain feeding, only very limited feeding of stored roughage during winter, and adjusting livestock stocking rates and production seasons to match the maximum growth rates and quality of the pastures. The result is that productivity per animal is often lower than in the USA but because of low cost, profitability is higher, and products are highly competitive in the world market.

Dairy production is especially interesting as it is geared almost entirely on production of manufactured milk products. Cows freshen in late winter so their heaviest lactation occurs during the spring pasture flush growth and continues until late summer or autumn when the cows are dried up for the winter when they remain on pasture and receive limited amounts of grass silage or hay. Production per cow is only one-half to two thirds of USA dairy cows as no grain is fed but costs are low and cows are kept in the herd for 6 to 7 lactations in contrast to the usual 3 in the USA. Dairy farmers rarely own their own forage harvesting equipment as grass silage from surplus spring grass is put up by contractors.

Sheep and beef cattle farmers are skillful in adjusting animal numbers to utilize available forage and keep pastures in good condition. In areas where dry summers stops grass growth, lambs or stocker beef cattle are sent to slaughter at the beginning of summer or sold to farmers in higher rainfall areas and breeding animals are maintained on dry grass in summer. In areas with summer rainfall, animals can be kept longer and raised to heavier weights before slaughter. Animals graze stockpiled pasture during winter and receive little hay during winter. Protein supplements are rarely fed.

How are pastures managed?

Pasture management is a highly

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developed skill in New Zealand. Pastures are generally cross-fenced into smaller units with single strands of electric polywire with animals rotated as needed to utilize the forage, maintain growth, and keep nutritive quality as high as possible. Even during the heavy spring growth period, one never sees livestock belly deep in grass. Surplus growth is utilized by speeding up the rotation of animals or harvesting several paddocks for hay or grass silage. The pastures, whether they be perennial ryegrass, annual ryegrass, tall fescue. phalaris, orchardgrass, or kikuyugrass, are grazed closely in the rotation and maintained in an active growing condition without dead leaves and stems over the season. White clover is the commonest legume but red clover, and subterranean clover are also used. Chicory is increasing in importance as it continues to provide high quality grazing in mid to late summer when cool season grasses are in a slump. Most perennial ryegrass in New Zealand pastures is infected with a fungal endophyte (similar to our tall fescue) which causes a serious staggers syndrome in sheep but this can be offset by maintaining adequate clover in a pasture. One sheep and beef cattle farmer I visited near Hamilton said that rotational stocking was the key to keeping the desired species in a pasture, maintaining quality forage growth over the year, and reducing weed problems. On this farm, he generally rotated animals every 2 days and rested pastures about 25 to 30 days although this schedule changed over the year.

Some final thoughts

Are there any lessons from New Zealand for Georgia? Obviously, our conditions are different and many things. may not apply. However, two things come to mind. First, grazing management needs to be improved so that pasture is truly managed as a crop to avoid waste and maintain the grass in an active growing condition over as much of the year as possible. Some additional cross fencing of pastures would assist in management. A second item is that hay is an expensive input in our animal production. Wasting one-third of it in bales stored outside adds to the cost. Cutting overmature grass results in low quality hay which requires additional expense for feed supplements. At present, our inputs are too high and efficiency suffers. The main lesson from New Zealand is that good pastures are the key to efficient livestock production and need to be managed as a crop.