

## Foraging Around



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### Grasslanding in Japan

Last month I promised a brief look at forage farming on the dairy and livestock farms of northern Japan. And while one does not become an expert as a result of a two-week visit to Japan I did round up a bit of information that may be of interest to dairy and livestock farmers in eastern U.S.A.

#### XV International Grassland Congress

But first, why was I in Japan? Briefly, the International Conference Center at Kyoto, Japan was the site of the Fifteenth International Grassland Congress. Attended by some 900 delegates from 45 or more countries this was the first such Congress to be held in Asia.

Many of you remember that the

Fourteenth International Grassland Congress was held in 1981 at the University of Kentucky. Yours truly had the privilege of serving as general chairman of that Congress. A few may recall that back in 1952 the Sixth Congress was held on the campus of the Pennsylvania State University.

In addition to the Congress itself, at which I had official responsibilities, I also participated in a well organized post congress tour to Japan's northernmost Island of Hokkaido, which included visits to several Japanese dairy farms, a public pasture, two research stations, the research farm of Japan's largest forage seed company and a number of scenic

attractions.

#### Japan and Its Grasslands

Before journeying north to Hokkaido let's take a brief look at Japanese agriculture in general. Japan with a land area the size of California has a population of about 120 million. From north to south its climate ranges from subarctic to subtropical. About 67 percent of its land is covered with forest and only 13 percent is considered flat.

Geologically the country is young. Soils are mainly of volcanic origin with 70 active volcanoes still in existence. There are only about 13.5 million acres of arable land with rice paddy fields occupying 55 percent of this area.

But the eating habits of the Japanese people are changing. Per capita rice consumption has declined materially and the consumption of meat and milk products has increased dramatically. Dairy cow numbers for milk and meat have doubled in the last 20 years, and beef cattle numbers have also increased. Currently, however, Japan supplies only 30 percent of the TDN needs of its livestock.

The changing diets of the Japanese people have also had an impact on land use. Rice production currently exceeds consumption and by national policy there's a major program to convert paddy rice fields to pasture for dairy and beef cattle.

#### Hokkaido - Japan's Kingdom of Dairy Farming

Hokkaido, Japan's northernmost island, is in the same latitude as between New York City and Ottawa, Canada and is characterized by a severe winter with heavy snowfall due to the northwest winds from Siberia. It is about the size of Maine and occupies 22 percent of the land area of Japan, but includes only 5 percent of its population. It is considered the frontier of Japan.

A mountainous island with several active volcanoes, the cultivated land of Hokkaido totals about 2.7 million acres (about 60 percent that of Pennsylvania), two-thirds of which are considered moderate-to-low in productivity. About 23 percent of Hokkaido's cultivated land area is paddy rice, 36 percent upland crop and 41 percent grasslands.

Major crops, in addition to rice, include wheat, kidney and red beans, potatoes and sugar beets as well as selected fruits and vegetables. Corn is rapidly increasing in acreage, mainly for silage. Red clover & timothy are

currently the primary species grown for hay crop silage and hay, while orchardgrass and ryegrass with or without clovers are the major improved pasture species. There is considerable interest in alfalfa as soil conditions (drainage and fertility) are improved.

About 38 percent of Japan's dairy cows (nearly 800,000 - about the same as Pennsylvania and almost exclusively Holstein Friesians) are located on Hokkaido. Traditionally surplus dairy calves and beef calves are pasture reared on Hokkaido pastures to a weight of 500 to 600 pounds and then transported to the main island for finishing in dry lots to a weight of about 1200 pounds.

The dairy farms I visited were modern, averaging 45 to 50 milking cows with a herd milk production average in excess of 15,000 pounds. Land area on most farms is very limited with soils generally slightly acid, only moderate in fertility and marginally drained. Emphasis is placed on intensive pasture management with surplus forage harvested as hay crop silage and stored in upright (both concrete stave and limited oxygen) silos as well as round bale silage in plastic bags. Some hay is also made. Corn is frequently

grown for silage on silos where it is adapted and Japanese engineers have done an excellent job of developing efficient forage harvesting equipment for the small farmer.

Due to the shortage of land it is difficult for individual dairy farmers to expand forage production and increase cattle raising operations by themselves. Thus, cooperative (public) pastures, primarily for young stock and dry cows, have been established and are managed by public corporations or agricultural associations. Public pastures are also used extensively in beef cattle operations.

Farmer cooperatives also play an important role in both Japanese agricultural and rural affairs. Their activities involve almost all of the operations in rural economy including purchases and sales of agricultural commodities and informational services.

This is just a very brief look at one segment of Japan's agriculture. But I trust you may have found it of some interest. Next month we'll take a look at a couple of so-called anti-quality components in two of our important cool season grasses and what has been done to overcome the problem.

## Governor to speak at Grange convention

HARRISBURG - Governor Dick Thornburgh has agreed to address delegates at the Pennsylvania State Grange convention in Warren, on Oct. 30.

The State Grange is meeting for their annual convention October 28-31 at the Library Theatre, Warren, to form legislative policy and elect officers.

Thornburgh is scheduled to speak at 7:10 p.m. on Oct. 30 at the Library Theatre. His address will precede the state talent finals, one of the highlights of the Grange convention.

Richard Grubb, acting secretary of agriculture since June, will accompany the governor and give remarks.

In addition to Thornburgh and Grubb, speakers at the Grange convention will include Congressman Bill Clinger (R-23), keynote speaker for the convention banquet on Oct. 29 at 7 p.m.; Rep. Curt Bowley (D-Warren, Forest), Oct. 30 at 2:20 p.m.; U.S. Senator Arlen Specter and Don Bailey,

state auditor general. State Grange Master Charles Wismer will give his annual address to delegates at the opening of the convention on Oct. 28 at 2:20 p.m.

Grange delegates will consider some 100 resolutions submitted by local and county granges. Policy originates at the grassroots level with adoption of resolutions by local granges. Resolutions approved at the local level are then considered by the pomona, or county, unit. Those approved by the county are sent to the State Grange for consideration by delegates from all the granges at the annual convention. Issues of national significance go on for approval at the National Grange Convention in November, in Eugene, Oregon.

An estimated 1,500 Grange members including 600 delegates will attend this year's convention. The State Grange is the state's largest farm organization with 42,000 members in 66 counties. The Pennsylvania Grange is the second largest in the nation

**OCTOBER 5TH-REAL ESTATE-MACHINERY-EQUIPMENT & INVENTORY Wool Mfg. Plant of "Pride of the Flock" Woolen Mills Inc., Raphine, Va. (Augusta County) 75 ACRES (May be offered in two Tracts and as a whole) TRACT 1-3 Acres w/Improvements (in Good Condition) approx 10,190 sq ft. Fronting Rts 620 and 726. TRACT 2-72 Acres, Open & Wooded. Many items of Farm Equipment, Machinery, and Office Furniture. Real Estate is Subject to Confirmation by Leinholder. Terms available with prior approval.**

**OCTOBER 12TH-10:30 A.M.-TRIPLE S PAVING, INC. Rochelle, Va. Model 80 Eyner Tar Distributor, Lillbord Tar Distributor, Blaw-Knox 65 Paver, 72 Ford Dump Truck, 2-1969 Chev. Dump Trucks, 1976 Ford Tool Truck, J.D. Backhoe, Molin Roller, Fuelhaul Tanker Trailer, 2-Tag-a-long Trailers, etc**

**OCTOBER 12TH-1:00 P.M.-ESTATE OF BEALE WHITTAKER Caroline County, Va. 1232 ACRES-11 TRACTS-17 PARCELS-Timber, Farmland Hunter's Paradise, Brick Home. Tracts from 10 Acres to 300 Acres All Property to be sold from the Intersection of Rts. 207 & 601**

**OCTOBER 18TH-DISPERSAL OF DAIRY HERD & Heifers Over Six Months Old-FLEETDALE HOLSTEINS (John I. Fleet & Sons), Hartfield, VA.-275 COWS AND HEIFERS (125 REG.) Aug Classification (14 VG, 26 GP, 29 Good) Current Rolling DHIA Average 18,101m 3.4% 611f (Average Age 47 Mos) 54 First Calf Heifers with Projected ME 18,627m 638f-144 Cows (78 Registered) 131 Heifers (47 Reg.) Va Milk Base (89,104 lbs. Winter) (5900 lbs. DI Daily Base, Old Dom Div) **FARM EQUIPMENT** used directly in relation to the Dairy Operation including AC 190xT Diesel Tractor, MF 180 Diesel, Melroe Bobcat Skid Loader, Forage Chopper, Baler, Manure Spreader, Disc Harrow, Combine, 1975 Int Pickup, Rake, Haybine, Forage Wagons, Hay Wagons, Mixer Wagon, Irrigation Pipe, Etc**

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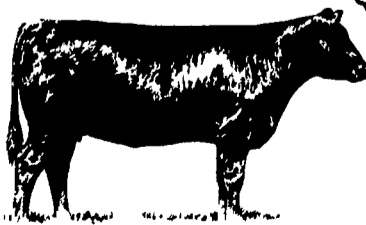
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