Idaho Agriculture — Farming Without Rain

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York Co. Correspondent

MOSCOW, Idaho — For as far as the eye can see, golden acres of ripe wheat wave in a dry, baking-hot breeze. Clouds of dust hover over the hills, telltale sign that harvesting is underway.

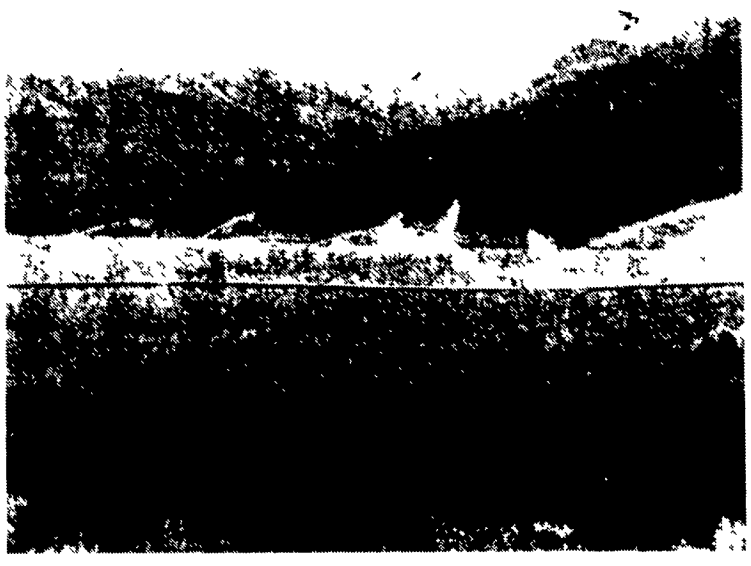
This is the Palouse (pronounce pa-loose'), a unique section of intense dryland grain agriculture production spanning the border of Idaho's panhandle and southeastern Washington.

A lava plain, the Palouse is believed to have been formed eons ago by Pacific winds blowing toward the northern Rocky Mountains carrying soil from the Columbia River basin. The silty-loam soil piled into sand-dune-like giant mounds, creating an area of random, steep-sloped hills and undulating valleys.

These topsoils are powdery, mostly stoneless, very rich, and reportedly as much as one-hundred-feet deep at some locations. Covering an area of approximately three thousand square miles, the Palouse is believed to be the richest production area in the world of soft white winter wheat. Soft white wheat is lower in protein and higher in starches, making it valuable for use in certain types of noodles, staple food, for many oriental peoples.

With adequate rainfall, the Palouse could no doubt grow a wide variety of crops. But rain is the limiting factor, generally from 14 to 20 inches annually, most of that between October and April. Irrigation, used extensively in some sections of Idaho, is not feasible in the Palouse, due to the hilly terrain and lack of water.

Wheat, long the staple crop of the area, is cropped in a three-year rotation with barley and dry peas or lentils, a bean relative. After grain harvest, fields are left fallow to gather and hold the minimal summer moisture. Weeds are controlled with the use of a weeder bar implement, which disturbs only the top inch or two of soil.



Though lack of rainfall leaves much of Idaho's rugged land covered with sagebrush, irrigation grows lush, green alfalfa along nearly any small stream large enough to support pumping.

Harvest of wheat gets into full swing in early August, as combines finish cutting the last of the dry pea and lentil plantings. A bulk of the harvests is trucked to Lewiston, the nation's innermost seaport, located at the confluence of the Snake and Clearwater Rivers. At Lewiston, grains are loaded onto barges, then moved downriver to the Columbia, and on to Portland, Oregon, for export. An estimated 75 percent of Idaho's soft white wheat is exported, primarily to customer countries in the Orient.

Wheat yields up to 130 bushel per acre are not unusual in the Palouse. Truckers hauling from the Moscow area related yield estimates this season running from 80 to 115 bushels. Newspaper reports indicated that record heat in Idaho this summer was cutting spring wheat yields somewhat. However, analysts still projected a record wheat production exceeding 100 million bushels, for combined yields of spring and winter wheat.

Hillside combines are the machine, not just of choice, but of necessity, on this sharply-sloping terrain. Special hillside mechanisms have reportedly been developed for this unique grain production area.

"Some combines level at 48-percent slope - and that isn't even quite enough sometimes," noted a combine mechanic in a Moscow equipment dealer's shop.

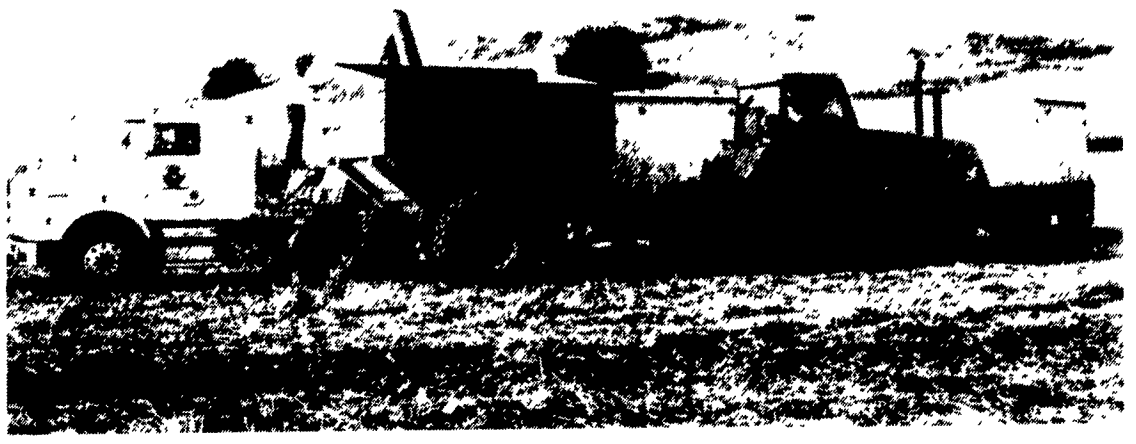
By early August, he added, four combines had already rolled in the immediate area. In fact, Moscow's local newspaper routinely carries advertisements for the uprighting and repair of rolled combines.

Cropping of dry, split peas and lentils is a relatively new addition to the Palouse area, according to Charlie Connoly, controller for the McGregor Fertilizer and Chemical Company. These legumes were added to the cropping program about the early 1960's as Palouse growers looked toward more planting diversity. Since, like all legumes, they make their own nitrogen, peas and lentils generally need no additional fertilizer.

Peas are fairly stable in price, usually selling for about eight cents per pound. Average yields run from 1,500 to 2,000 pounds per acre.

Lentils, round, flat legumes about a quarter-inch in diameter, primarily go for export to countries including Egypt, Turkey and India. Price is more volatile than that of dry peas, ranging from as high as 40-cents per pound down to as low as 13-cents per pound. Lentils yield about 1,000-pounds to the acre.

The three-year rotation helps control disease problems which can come with minimum tillagle and straw residues of continuous grain cropping. Burning of straw, once a common way to rid fields of residues and pest problems, is now largely banned.



Gravity wagons shuttle harvested wheat from combine bins to waiting tractor-trailer rigs. Many haulers pull a smaller unit behind their trailer, dubbed a "pup," to move a combined capacity of 37 tons of grain.

Aerial application of both fertilizers and pesticides is common in this area of large-acreage fields. Many farmers are private pilots, utilizing planes as readily as a pickup or harvest equipment.

According to Connoly, the average Palouse farm is about 900 acres, perhaps half of that owned. Grain truckers relate, that the largest producer in the area crops 16,000 acres.

Land prices for the most productive Palouse ground runs in the range of $1,200-$1,400 per acre. Farms are primarily family-operated, with many passing down through the generations.

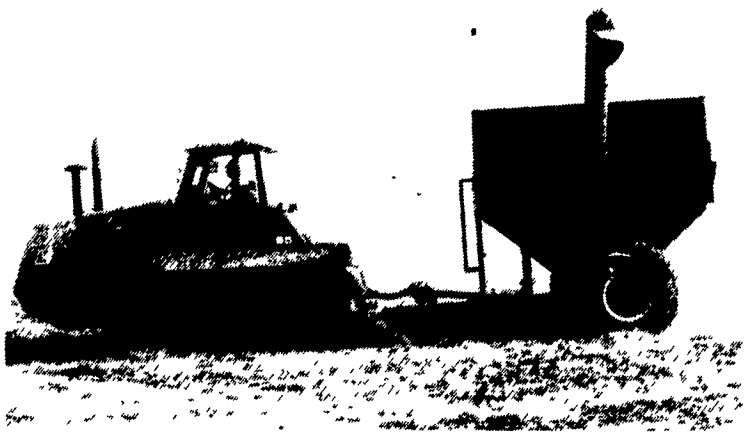
By concentrating solely on grain and dry legume crops, producers in the Palouse can limit their equipment inventory. Most inventories though, are extremely large scale.

"Probably to start a farmer would need a D-6 Caterpillar or a 250-275 horsepower tractor, hillside combine, grain trucks, chisel plow, drill and a rod weeder for summer fallowing," indicates Charlie Connoly.

Crawler-track tractors are favored for the Palouse's steep slopes, as are the four-wheel drive, dual-wheeled giants. Articulated models, once quite popular, still are frequently seen. Disks, chisels and related tillage equipment, as well as combine headers, often run to 24-foot widths. Planting rigs are generally three, four, even five, grain drills operated in tandem. Due to cost of the large equipment needed, leasing of large, new tractors and hillside combines is increasingly popular.

Palouse farmers face some similar problems to those of producers around the country, including loss of some chemicals for certain crops and increased chemical-use record-keeping. Conservation requirements for government program participation is already changing some cropping practices. Some erosion-control contouring and strip-cropping is underway, through strips are much wider than those familiar to mid-Atlantic area producers.

While lack of water limits the Palouse to primarily dryland farming, other parts of Idaho which have adequate water flow do irrigate and produce a variety of crops. Potatoes, corn, sugar beets and alfalfa are grown intensively under irrigation. Both trench irrigation and spray rigs of every shape and size bring lush green crops to what is otherwise barren, desert-like terrain, covered with sagebrush and tumbleweeds. Wherever a small stream flows through hilly, dry, grazing country, an alfalfa field under irrigation will add a patch of green. Giant stacks of bales line the edges of these lush fields, awaiting sale or winter use for the herds of beef cattle which roam Idaho's hills and mountains.



Crawler tractors are favored by many farmers for negotiating the rolling, sheep-sloped hills of the Palouse area of Idaho and Washington.

Alfalfa can be grown and harvested under almost ideal conditions here, watering as needed and simply shutting off the pumps for the hay to be cut and cured under usually bright sun and low humidity.

Alfalfa seed is also grown in some parts of Idaho, along with such diverse crops as onions, mint, grapes, numerous fruits, and hops.

Hops, an essential ingredient in the making of malt beverages, is grown on 18-foot high trellis. From a distance, fields of hops resemble giant, oversize vineyards. The vines of this perennial are hand-trained to grow up twines attached to the trellis structure.

Harvest, which begins in August, reportedly continues on a 24-hour basis into September. The vines of this member of the nettle species are cut and hauled in from the fields at harvest. The hops "fruit," which resemble small, papery pinecones, are removed by machine, kiln-dried, and packaged in 200-pound bales. A pound of dried hops will flavor about 100 gallons of beer.

The world's largest planting of Hallertau hops is reportedly located at Bonners Ferry in Idaho's northern panhandle, not far from the Canadian border. Here, the Anheuser-Busch company produces this German variety of hops on 875 acres. Hops are also grown west of Caldwell toward the Oregon border in a productive desert valley irrigated by waters from the Snake River.

Wildflowers Brighten Highways

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Along Pennsylvania highways, motorists should see a virtual flower show on 150 acres of median strips, roadsides and exit ramps, courtesy of Penn State and the Pennsylvania Department of Transportation.

Flowers, such as blue flax, Siberian wallflowers, bachelor's buttons and black-eyed Susans, will light up highways throughout the state. Penn State project assistant Gregory T. Lyman received funding from PennDOT to develop a seed mix that would flower throughout the season.

Lyman evaluated 50 different wildflowers and selected 17 species that blossomed well, established ground cover and competed with weeds. Lyman also took flower size into account. He points out that when you're driving 55 miles per hour, small, delicate flowers — no matter how beautiful — won't make much of an impact.

The result is a mix of perennials native to Pennsylvania and the northeastern United States.

In recent years, several state departments of transportation around the country have initiated wildflower programs. Part of the goal in planting wildflowers is to preserve plant species that are being pushed out of natural habitats by development and farming.

Penn DOT maintains 44,000 miles of roads in Pennsylvania, including interstates, main arteries and secondary roads. Since October 1985, the department has cooperated with Penn State to investigate roadside vegetation management. Dr. Thomas L Watschke, professor of turfgrass science, oversees the project.

But when you see wildflowers along the road, look and don't touch. State Highway Law 36-PS makes it illegal to pick them.