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Agriculture In The Palouse

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The Cover

Powerful and efficient, today's farm machinery allows one person to till ground that formerly required work by ten or twenty men and scores of horses and mules. Keith Williams photograph.

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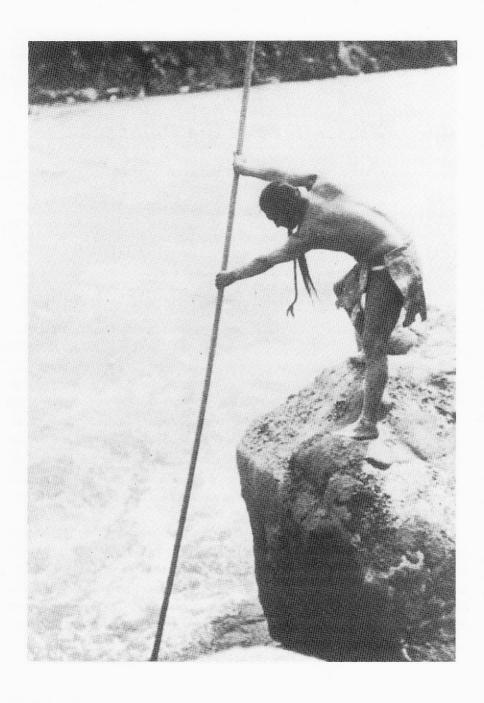
Agriculture in the Palouse*

by Keith Williams

Palouse agriculture has changed greatly since the small-scale subsistance farming that typified initial settlement in the late nineteenth century. In 1974, for example, Whitman County farms averaged 1,025 acres and farmers harvested 25,565,237 bushels of wheat, quite a change from earlier statistics. Countless struggles and numerous experiments have taken place over the past century to bring production to these high levels. But the most significant change came when settlers realized that hillsides, not only could be farmed, but that they produced abuntantly. Nevertheless, the various experiments that preceded cash crop farming—cattle and sheep grazing—were important learning experiences that were necessary stages in the move toward today's large agribusiness operations.

Stretching between the Snake River on the south, the Channelled Scablands to the west, the mountainous terrain of Idaho to the east, and an imaginary line between Cheney, Washington, and Potlatch, Idaho, to the north, the Palouse possesses a rich fertile soil unequaled in any other Pacific Coast state. It covers approximately 1,350,000 acres; 90 percent of it is arable. Area farmers have never experienced a total crop failure and consistently realize per acre yields double those of the nation as a whole.

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The word "Palouse" is derived from the Indians who first made this country their home. The Palouse Indians called themselves *Na-ha-um*, "the people of the river." They were a Sahaptin-speaking group composed of several autonomous bands. Wintering along the Snake River from Alpowa to the Snake's confluence with the Columbia, they maintained over forty winter villages during the historic period. The Palouse bands had no true political units larger than the village itself. Consequently, the "tribe" did not exist in a literal sense, though socially there was a village-to-village cohesion. This latter factor probably led Lieutenant John Mullan to estimate their numbers at only 200 in an official report. Mullan, who was in the area surveying a military road that subsequently bore his name, indicated that the Indians did not cultivate the soil. This he attributed to "the absence of any great amount of farming land in their country." To Mullan, the bunchgrass-covered hills did not look arable.

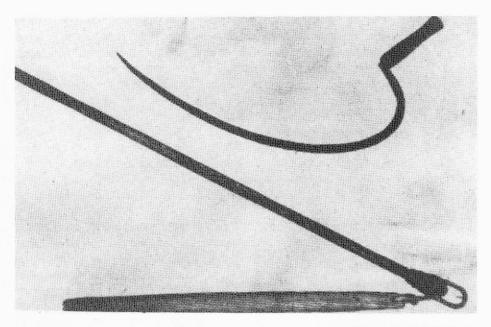
The Palouse Indians subsisted under a system of migratory rounds, fishing part of the year, digging camas and biscuit root, gathering berries, and hunting small game. They also feasted occasionally on whitetail or mule deer and, infrequently, pronghorn antelope. There were no buffalo in the Palouse, as the animals could not surmount the human and geographical obstacles present. There is, however, prehistoric evidence that precursors to the modern buffalo existed in the region. Area Indians did hunt buffalo after they acquired horses, but only by traveling periodically east to the Rocky Mountains to join the Plains Indians' hunting parties.

Probably the first white men seen by the Palouse Indians were attached to the Lewis and Clark Expedition; but shortly, they encountered a wide assortment of traders, including Donald McKenzie, Alexander Ross, Jedediah Smith, and missionaries like Marcus Whitman, Henry Spalding, Cushing Eels, and Elkanah Walker. Yet it is doubtful that these sporadic contacts with whites prepared the Palouse Indians for the tremendous influx of settlers that converged on the area in the late 1860's and the 1870's.

The First Wave of Pioneers

Eastern Washington was thrown open to white settlement by the Walla Walla Treaty Council of 1855, yet the area remained isolated with virtually no white inhabitants until the development of steamboat transportation on the Snake River in the late 1850's and 1860's. This gave the Palouse country easier access to the major marketplace, Walla Walla. Another reason for the slow settlement was a general lack of interest in the hilly area. Pioneers coming from the east coveted bottomland, and while available in the Palouse, it was in short supply. The Mullan report noted that in the Palouse there were "several tracts of good soil found along the Palouse [River], but the absence of timber is an impediment not easily supplied." Although Mullan did mention the "black loam [which would] doubtless provide cereals and vegetables," he was referring to bottomlands rather than hillsides.

The earliest pioneers looked for flats, water, timber, and hay. According to the settlers' experiences in the more humid, shallower-soiled East, flats had the best ground for crops, and along with valley bottomlands provided accessibility to water for stock and human consumption, to timber for construction and fuel, and to hay to feed their stock. Consequently, early settlers in the Palouse ignored the bunchgrass hill-lands and tended, particularly at first, to seek out the scattered bottomlands in the rolling hills of the higher, eastern portion of the country. Finding unclaimed bottomlands was not easy. Ironically, an early settler interviewed in the 1930's related how he:



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Grain harvesting tools, like this sickle and flail were used in the early days of Palouse settlement. Most area
pioneers used a cradle—a scythe with wooden fingers attached. These fingers dispersed the cut grain evenly and was
a more effective tool than the sicle.

got on a horse and rode for days and days over thousands of acres looking for land which was level enough to grow wheat—passing up thousands of acres of hilly land that has for the last sixty years been growing forty, fifty, and even sixty bushels to the acre every other year.

By the end of the 1860's settlers had claimed creek bottom lands well north of the Snake River, including Paradise Valley (near present-day Moscow, Idaho), Union Flat Creek, the Upper Palouse River near the Washington-Idaho border (close to present-day Palouse City), and the flats to the north of the latter area. The selective settlement pattern created a frontier of scattered clusters in the Palouse rather than an ever-expanding wave.

The first Palouse settler of record was George Pangborn, a young bachelor from Walla Walla, who squatted on unsurveyed land on lower Union Flat Creek in 1862. Another early pioneer was Joseph "Kentuck" Ruark, who moved with his Indian wife to a ranch near the mouth of Union Flat Creek in 1862-1863, where they raised cattle until 1865. He was perhaps the first family man to live and farm in the region. Others who came into the area included Thomas W. Davidson, Joseph Delong, and Ben Scissom (the latter two settling along the Palouse River). By 1871, eighty-three families resided in the Union Flat Creek and Palouse Forks localities. At this time, the Palouse Country had a white population of only 200 hardy souls. Between 1870 and 1872, settlement spread along Union Flat Creek and the Palouse River near Colfax. Pioneers also moved into the proximity of Hangman, Rebel Flat, and Pine and Fourmile Creeks, as well as the present communities of Genesee and Spangle, and at the lower end of Rock Lake. By 1873, the population of the Palouse stood at 1,000 people and was growing rapidly.

The earliest settlers were bottom land subsistence farmers growing small patches of various crops (such as corn, wheat, and vegetables) and raising a few head of beef,



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The horse-powered thresher was operated by a revolving wheel "pushed" by horses or mules.

dairy cows, and hogs for personal use. Soon, however, cattlemen realized the potential of the luxuriant growth of bunchgrass native to the region. Arriving in the area in 1868, these men at first restricted themselves to grazing stations in the bottom lands. Later, extensive use was made of the bunchgrass-covered hills. A nutritious and plentiful natural hay, the bunchgrass made a perfect winter feed as well as spring, summer, and fall graze. Ranchers wintered their stock in the mild western sections of the Palouse and in the sheltered Snake River Valley. In the summer, they drove them to the lush eastern ranges of Idaho. After fattening, the cattle were sold at the mining camps of Idaho and Montana, a profitable enterprise. By 1871, over five thousand head had been driven across the Snake River from the Walla Walla country. These cattle, mostly of the Durham or other shorthorn breeds, rapidly spread across the Palouse in increasing numbers. By the end of the 1870's, there were 45,000 head in Whitman County alone. Business boomed for a time, but it did not last. Overgrazing and overproduction caused a financial depression in the cattle industry and the business became less profitable. In the 1870's, cattle had sold for forty dollars per head on the local market, but over the next decade, the price dropped thirty dollars.

The market glut, however, was not the killing blow. Rather, the cattle industry was largely destroyed by loss of range to other interests, particularly sheep herds and farmers. As early as the 1870's, there were 58,000 sheep on the Palouse hillsides, valleys, and outcroppings. Sheep and cattle competed for the same rangelands, a problem not unique to the Palouse. The sheep won. Yet the major usurpers of the open range were the homesteaders. The yeoman farmers fenced their crops, a development which eventually meant the end to free and easy utilization of rangelands by cattlemen and sheepmen. And finally, the open-range cattle industry on the Palouse was struck by a sequence of severe winters. By the 1880's, stock raising was restricted to the dry, rough country on the western boundary of the Palouse. The farmers had taken over.

The Homesteaders

In 1877, agricultural development in the Palouse received a boost when farmers discovered the unexpected fertility of the deep loessal soils of the hillsides. To compensate for the lack of rainfall, they practiced dry farming, a process of initial deep plowing followed by frequent cultivation, which helped the soil retain moisture. In addition, farmers had to overcome their prejudice against the steep slopes, something made easier by the bountiful wheat harvests. In fact, one settler correctly contended that the move to hillside farming was as important a factor in the economic development of the Palouse Country as the Idaho mining boom of the 1860's-1880's.

Another consequence was the rapid growth in population. Whitman County, for example, experienced a fifty percent increase over a one-year period, from 3,709 in 1878 to 5,290 in 1879. When asked why he settled in the Palouse, an early farmer replied, "Father had heard and read glowing accounts about the fertile prairies of eastern Washington." Another said, "[We] found all the good land taken up in the Willamette Valley [Oregon], and we heard there was still plenty of good land in the Palouse Country." By 1900, there were 25,360 people in the county, and acreage was no longer easy to find.

Farmers used several different methods of obtaining land. A few claimed acreage under their Civil War bounty awards while others used the Donation Land Law, which originated in the Oregon Country of the 1850's. But most prospective settlers preempted their claims or used the Homestead or Timber Culture Acts. Studies done on the land entries for the various townships located within the Palouse show that settlers made much less use of preemption than the Homestead Act in their land claims, which was particularly true after the 1880 amendment to the Homestead law. It allowed squatting on the property prior to survey and filing to be counted toward meeting the five-year residence requirement set forth by the act along with its improvement stipulations (the homesteader was required to construct a dwelling, fences, and other permanent structures.)

The Homestead Act was not always the most convenient means of gaining lands. Proving up on a claim, particularly in the Palouse, could be difficult (discussed below). Many of the incoming settlers preferred to buy their land and dispense with the headaches of accomplishing the improvements under the rigid time limits of the act. Others with an entrepreneurial flair homesteaded a section of good land, improved it, lived on it just long enough to obtain title, then sold out to incoming farmers who then moved their families to the crude shacks built by the original holders. Some began a homestead claim, then after only six months of residency and improvements had the claim commuted to a preemption entry. By so doing, they obtained title to the land by making the minimum payment of \$1.25 per acre, occasionally a cheaper and more certain proposition than completing the required residency and improvements to obtain the land "free of cost."

Yet this land was hardly "free," for there were many obstacles to overcome in order to meet the stringent legal requirements set by the Homestead Act. In the



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Early homes in the Palouse were often built using rough-cut boards and were placed on the structural frame
vertically.

Palouse, these hurdles included such adverse conditions as its isolated location, lack of timber, and, until settlers discovered the fertility of the hillsides, the absence of level "arable" land. The area's distance from the nearest regional market center, Walla Walla, caused pioneers to incur extensive travel costs while searching for their "free land." Until 1876, when a land office was established at Colfax, individuals had to travel all the way back to Walla Walla to file their claims. The region's distance from the markets also raised the expense of shipping freight in and produce out, thereby increasing the costs of a settler's "proving up" activities and reducing his net income from crop sales, a bane to the struggling newcomer on both counts.

The lack of timber also created problems in the Palouse. To build their homes, settlers either had to bring in logs from forested fringe areas, buy rough cut boards from a nearby sawmill, or improvise. Not surprisingly, log cabins were seldom constructed in the region, since the only large stands of trees were in the eastern and far northern boundaries. The improvisation of shelters either entailed the excavation of a dugout with accompanying sod construction or a Palouse version of a sod house. In the construction of dugout homes, the pioneer simply dug a "cave" into a convenient hillside, then, using cut blocks of sod, built walls and a roof. The "Soddys" themselves were constructed in essentially the same manner as those of the Great Plains. They proved only temporary shelters, as the finely-textured Palouse soil quickly dried and crumbled. These sod-constructed homes became soggy, dripping mires of mud in the winter, and provided less than desirable living conditions, to put it mildly.

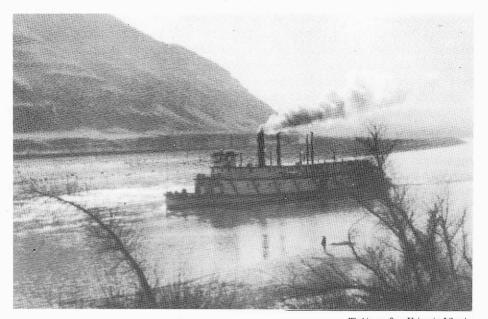
The most practical form of housing in the Palouse, the board-home, was still expensive and did not make the process of land improvements any easier. The simple box house, the most common structure, was constructed of vertically positioned, wide,

rough-cut boards. The cracks or joints were covered by battens or stuffed with mud, grass, newspapers, or any other handy material. With few sawmills and a large demand for the lumber, the price for boards was high and the supply limited. Other improvement costs, such as filing fees and the normal ground breaking, planting, fencing, and harvsting expenses incurred on a farm all combined to make the 160 acres of "free land" gained through a Homestead claim quite expensive. Worse yet, it simply was not enough land. Under dry farming techniques, a farmer needed more land to allow for the necessary fallow ground, and still had to have enough to raise crops to feed his family and to pay debts. Some made it while others, financially broken, gave up their claims. Others turned to alternative "free land" sources for a fresh start or to augment the farm they already possessed.

While Homestead and Preemption acts were the most widely used means of obtaining public lands in the Palouse and Washington Territory, many farms were also established or enlarged under the Timber Culture Act of 1873. This measure granted 160 acres to anyone who planted forty acres of trees and maintained at least one-half of the initial planting for ten years. Unfortunately, in the arid West, drought often killed the trees before they became established, occasionally forcing settlers to replant several times. Further compounding the difficulties were disputes over the types of trees allowed as "timber." Cottonwood, poplar, and aspen, all of which grew well in the Palouse, were at first declared ineligible. Some farmers, unaware of the decision, had planted unauthorized trees and had to replant with acceptable species such as locust, box elder, ash, and maple, many of which did not grow well in the region without a tremendous amount of care. The Timber Culture Act, along with other homestead legislation, proved unrealistic and impractical when applied to the dry regions of the West. Few of the original timber culture claimants in eastern Washington actually fulfilled their required improvements and plantings and obtained patent to their claims. In 1891, the Timber Culture Act was repealed.

By the early 1880's, most of the choice Palouse lands had been claimed. Pioneers either had to purchase relinquishments and rudimentary improvements from earlier immigrants, move out into less desirable fringe areas, such as the scablands and Big Bend Country to the west of the Palouse, buy school or lieu properties, or utilize a new, and very important resource-railroad lands. The railroads offered some definite advantages. Depending upon location, prices were generally quite competitive. For example, in 1879, prices at the Northern Pacific land office in Colfax ranged from three to five dollars per acre. In addition, the railroads offered generous credit terms, sometimes giving up to ten years for repayment. These reasonable prices and credit terms, coupled with the fact that improvements and time restrictions were not an issue, made railroad property quite attractive to incoming settlers. Furthermore, the companies had plenty of land available. The Northern Pacific's Federal grants included over one-half the good farmland in Whitman County. As incoming farmers took advantage of these cheap properties, the railroad became one of the major promoters of settlement in the Palouse and other western frontiers, bringing in immigrants from the East and other areas of the United States as well as from European countries.

The Palouse quickly became politically organized. Whitman County was established in 1871, partly due to its distance and isolation from the Walla Walla region, the nearest political assemblage and marketplace. Settlements soon existed throughout the Palouse, particularly in the seemingly more attractive eastern portions. By the 1870's, there were towns in Colfax, Palouse City, Almota, Rosalia, Penawawa,



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As early as 1859 small steamboats were operating as far up river as the junction of the Snake and Clearwater.

and Ewartsville in Whitman County with the major population clusters at Almota and Colfax. In present Latah County, Idaho, Genesee and Paradise Valley (present-day Moscow) arose as population centers as did the area east of Farmington (particularly near Potlatch, Idaho). Eight years later, Moscow was a comfortable farming community of fifty houses. Palouse City in Whitman County, founded in 1877, had approximately two hundred inhabitants two years later, while the Whitman County seat at Colfax has a permanent population of 450. Earlier settlers had often chosen to make annual trips to Walla Walla for their staples because of lower prices and better selection of merchandise. When efficient freight lines penetrated the Palouse, the increased supply base removed the settlers' incentive to trade elsewhere and the local population supported nearby markets. The establishment of effective transportation systems proved to be a major stimulus for area growth.

Immigrants moving into the Palouse arrived by wagons, steamboats, and trains. An early steamboat, *Colonel Wright* made its way up the Snake River as far as its junction with the Palouse as early as 1859. By 1861, small steamboats were operating regularly as far upriver as the junction of the Snake and Clearwater Rivers. In the 1870's, landings were established at Almota, which became the principal port of entry for newly arrived settlers, and at Penawawa, Wawawai, and Texas Ferry. These landings served not only as major points of disembarkation for incoming travelers, but also important shipping depots for Palouse producers. Almota, for example, was the chief shipping outlet for Colfax and Palouse City, and it still serves as an important grain depot for today's modern Snake River barge lines.

Water transportation had its disadvantages. Numerous natural obstructions in the Snake and Columbia Rivers made reaching Portland, the river terminal for ocean-going traffic, an ordeal. The Cascade Rapids, The Dalles, and other falls all necessitated

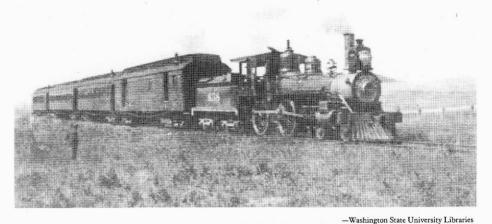
portages, a time-consuming and expensive endeavor. Just reaching the shipping points in the Snake River Canyon was a trial in itself. To get to the river, plateau farmers either had to brave sinuous, brake-burning grades with their teams and wagons, or use the tramways and gravity chutes constructed at several locations along the rim of the canyon. The grain chutes saved time and wear and tear on the farmers and their horses and wagons, and cut down on the danger, but the risk and expense still remained high because the grain had to await the uncertain arrival of an empty steamboat. In addition, sacked wheat arriving at a gravity chute had to undergo the time-wasting effort of de-bagging and then re-bagging at the bottom. The tramways did allow bags to be left intact throughout the journey, but they still required extra handling. Clearly, a new means of transportation was necessary for the area's growing production needs. The railroad satisfied these increasing requirements.

The Iron Horse Era

It was the Northern Pacific Railroad that first moved into the Palouse to tap its commodity reservoirs. In 1883, the Northern Pacific built a line from Palouse Junction (present Connell) to Colfax; service began in January 1884. Its monopoly in the area disintegrated when the Oregon Railway and Navigation Company separated from the Northern Pacific and immediately built its own branch line from Colfax to Moscow, constructing another one from Colfax to Farmington a year later. In a complicated series of competitive construction surges involving not only the Northern Pacific and Oregon Railway and Navigation Company, but the Union Pacific and others as well, lines soon crisscrossed the Palouse connecting such towns as Riparia, La Crosse, Tekoa, Genesee, Juliaetta, and others. The Palouse now had its railways, a series of ties to the major markets of the Pacific Northwest. The effect on the region was remarkable. Farmers could now haul their grain and other crops to nearby rail points and ship to Portland or any other city they chose. Conversely, groceries, farm machinery, and other freight now reached the Palouse much more easily and cheaply.

The railroad provided the necessary facilities for the shipment of lumber, livestock, fruit, grains, and other produce. Lumbering, while not genuinely a Palouse-based industry, was important in the nearby northern and eastern segments of Idaho, and thereby affected local towns, particularly Potlatch, Moscow, Palouse City, and Colfax. Fruit raising in the area had begun with the earliest settlements as household orchards. In the late 1880's through 1890's orchards achieved commercial status, as apples, prunes, plums, pears, and apricots were all grown in the region. By 1883, the Northern Pacific Railroad had made plans to provide refrigerated rail cars to transport the produce. Its commercial growth stimulated the local economy for several decades. Fruit, during the early settlement period, was exceedingly rare in the Pacific Northwest and so the local crop sold well in the regional marketplace. The development of these commercial operations also brought an indirect economic boost, for it created jobs and increased sawmill revenue due to required crate manufacturing.

Orchard centers arose in the Colfax-Pullman locality, near Elberton, and particularly along the Snake River. In 1890, Whitman County raised 25,976 apple trees alone and Latah County followed closely with 22,739 trees. Fruit growers associations were formed in the region to aid the members in exchanging ideas to increase production and otherwise improve their industry. Although often raised side by side with wheat, particularly in the eastern Palouse, grain fields and commercial orchards were not common on the same farm.



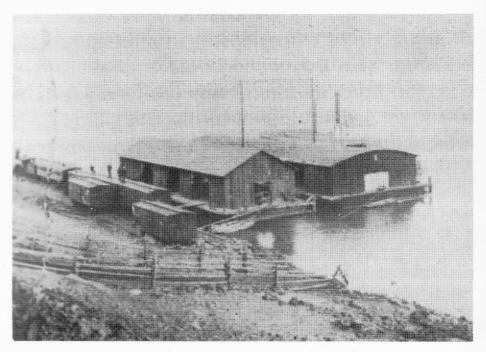
The arrival of railroads to the Palouse brought the necessary means to ship lumber, livestock, fruit, and grain to the outside world.

In 1910, competition in the production of fruit arose from districts near the Cascades in central Washington and rivalry from wheat for field space caused a decline in the importance of fruit in the Palouse. Grains were simply easier to grow and more cost effective in returns. As a result orchardists decreased in number after 1910 and farmers began relying more and more heavily on a combination of grain and livestock production. Fruit-growing remained important to the average small farmer, but mainly as an added food supply for the family table.

For virtually these same reasons, nearly every farmer in the Palouse had a few cows for milk and meat and a few hogs for pork and lard as well as for cash sale. Hogs became a fairly important enterprise in the Palouse because they did not directly compete for the wheat lands. The average farmer kept four to twelve brood sows, generally of mixed breeds, which could glean the grain (and legumes) left in the fields after harvest, as well as feed on weeds in the fallow fields.

Cattle served a similar function. Most farmers kept one or two milk cows along with their other livestock. These dairy cattle were never large cash producers, although dairying grew in importance at about the turn of the century. The cows provided the farm families with milk, cream, and butter as well as a little extra cash. The cows were milked by hand. The cream was then separated and the skimmed product often fed as slop to the hogs. In the end, the cream was either consumed, made into butter (which could be sold or traded at local stores), or shipped from area rail stations to Spokane markets.

Beef cattle, although raised in small numbers, were not important to the Palouse after the initial grazing period of the 1870's. Stall-fed beef were uneconomical in the region since Palouse grain was more valuable on the market and the land was more cost-effective in cultivated crops. In addition, the expense of wintering cattle in the Palouse was high as the bunchgrass that had once covered the terrain providing lush,



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Railroads co-existed with Steamboats for a number of years. This photo shows a railroad siding and warfboats at the Riparia landing.

nutritious grazing areas had given way to cultivation. Raising cattle or any other livestock in large numbers placed the herds in direct competition for valuable grain producing land. Once the needs of a herd surpassed the available stubble and fallow field gleanings, the farmer had to produce feed, which was not economically practical except in situations where the livestock were necessary (such as for work horses). For the most part, raising wheat or other grains for export brought better financial returns than growing pasture grass, alfalfa, or other livestock feed. Since wheat proved most productive in the Palouse, it was, and remains, the major crop in the region.

Cash Crop Farming

The first commercial grain crop on record in the Palouse region was grown in 1869 on the Palouse River, approximately ten miles downstream from Colfax. Walla Walla County remained the producer of almost one-half of the wheat grown in Washington through the 1870's, but by 1879, Whitman County contributed several thousand bushels annually. The county had almost eighteen thousand acres of land under cultivation, nearly half planted in wheat. One author of the period stated that the Palouse was "destined to be the granary of the northwest." This optimism had been shown with other enterprises at various times, but with wheat, the enthusiasm was warranted. Palouse wheat grew to a superior quality, with large plump kernels which made excellent flour. Yields of from forty to sixty bushels per acre were common, and eighty not unknown. It was even reputed that volunteer crops (grain springing up from the last year's harvest leavings) of up to forty bushels were not unusual. These amazing

yields were due to a variety of conditions, some of which were soil fertility, a hardpan or clay layer subsoil (which helped hold moisture at a level reachable by plant root systems), mild winters, moderate rainfall during the growing season and fairly dry maturing and harvest seasons, moisture-laden westerly winds from the Pacific, and very few dry, dehydrating winds from the east.

Although wheat has remained the mainstay of the Palouse, other crops have also done well. Oats, barley, seed and dry edible peas, lentils, mustard, rapeseed, and, during the early period, flax have been grown as well. Some of these were raised as short-term attempts to overcome temporary market gluts of wheat. Easily grown, wheat yields heavily and has occasionally been overproduced to the point that market prices fell drastically. During these periods, alternate crops proved financially rewarding. At other times, such as the World War II era, high government supports on legumes, such as peas and lentils, encouraged their production. While other crops, such as sugar beats, carrots, potatoes, alfalfa, timothy and clover hay could also be cultivated in the Palouse, none of these brought the monetary returns of grain crops. Sugar beets, an experiment which received heavy promotion during the turn-of-the-century years, never really caught the attention of area farmers. In 1900, only twelve growers with 350 acres were producing beets. By 1909, the acreage still totaled only 1,363, which indicated the failure of beets to become a major crop when compared to the amount of land devoted to cereals and other crops.

Wheat, oats, and barley became the major cereal producers in the Palouse, although rye was occasionally grown. Wheat, as discussed previously, led production as the table below shows:

Cereal Production (Whitman County)

Year	Wheat (Bushels	Oats (Bushels)	Barley (Bushels)
1903	6,591,002	1,734,956	465,475
1904	8,523,766	1,196,508	621,512
1905	9,351,331	1,777,180	468,017
1906	7,894,764	2,977,117	568,823
1907	9,961,589	4,031,447	962,312

Earlier statistics show that this same pattern of production (wheat first, oats second, and barley trailing third) held true after the era of initial settlement, but that the pioneer period itself was a different story entirely. In 1879, 10,225 acres of wheat were planted in the Palouse with a harvest of 204,762 bushels. Oats only grew on 6,326 acres, but the yield was higher at 231,922. Barley followed, a poor third, with only 1,411 acres planted and 51,732 bushels harvested. As is evident from these figures, oats, though given less acreage, had higher yields in the early years than wheat, an interesting development related to the pioneers' initial misconceptions about the Palouse country.

As noted previously, the first settlers selected bottomlands for their farms and avoided the Palouse hillsides. These bottomlands and areas near the eastern fringe of the region that were chosen out of tradition, past experience, and their proximity to

water and timber, also received severe frosts. Oats, more resistant to cold snaps than wheat, were often planted by discouraged bottomland farmers who had lost their wheat crops to this prank of nature. Other settlers simply gave up their claims and left for other garden spots. In fact, wheat did not begin to lead production until settlers started moving onto the more fertile and less frost-affected Palouse hillsides. Even then, oats still remained popular. Farmers could sell the crop locally as feed for area work horses, while wheat (for the most part) had to be exported. Other nearby, though somewhat limited, markets for oats were provided by Army livestock and the pack trains to the Idaho mines. Spokane, Lewiston, and Lapwai furnished a local market for oats, while wheat necessitated a long, arduous, and expensive trip down the Snake and Columbia rivers to Portland.

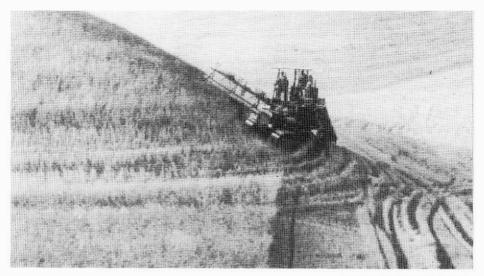
In later years, oats and barley became important as complementary crops to wheat, particularly in the moister districts of the Palouse. In the more humid areas, mostly in the eastern portion of the region, farmers often fallowed the ground every third year with oats and barley as a spring-sown crop for the second year of the rotation. They got better yields from these crops than if they cultivated a second planting of wheat. The crop rotation consequently consisted of wheat the first year, oats or barley the second, and fallow the third.

Palouse wheat has been mainly the soft, winter variety, although some spring wheat was seeded on fields that were winterkilled. The soft varieties could not serve as bread flour, except as a blend, as loaves made exclusively of these grains have a short shelf life. As a result, the wheat has generally gone into pastries, crackers, cake mixes, cookies, and pastas. Because of this, the majority was exported. A few mills in local towns provided residents with their own flour, but it accounted for very little of the grain produced. In 1907, for example, of 9,961,589 bushels harvested in Whitman County, area mills processed only 326,000 bushels. Much of their efforts went into the production of bran, shorts, and cheap feed for Palouse livestock and poultry. The heavy export of the region's wheat created a large market, which, along with other factors, allowed maximum growth of local farms.



—Esna Cochrane Family Photograph

After the mid-1940's tractors and other mechanized equipment were used almost exclusively on Palouse area farms.



-Washington State University Libraries

Tractor-pulled combines were first introduced to the Palouse in the 1930's.

Although begun on a small scale, conditions soon developed which allowed Palouse farmers to enlarge their operations and encompass more acreage. The earliest settlers had been subsistence farmers, who had to break the heavy Palouse sod and cultivate their fields by primitive methods. With little machinery, they sowed their grain by hand, harvested with a scythe or cradle, and flailed or "horse-hoof" threshed. Later, farmers contracted threshing to anyone who had a machine. The charge for the service varied, but one pioneer remembers it as two or three cents a bushel and the owner of the thresher had to feed his own crew. By the end of the 1870's, horse-powered machinery was available to the Palouse farmer. Dump reapers, rakes, headers, binders, threshers, gang plows, drills, and other types of equipment were shipped up the Snake River to various landing points. Visitors were amazed when they first saw a six-horse team plowing or larger teams pushing a header over the hillsides in the 1880's and 1890's. They also were astounded when they viewed twenty to thirty-six-horse teams dragging the huge bulk of a Holt combine over the same terrain.

With an increased use of machinery, Palouse farms began enlarging as the average property grew from 203 to 286 acres from 1880 to 1890. Mechanization, quite simply, allowed the farmer to cultivate more ground per man-hour of labor. By the same token, the size of the farm could place a limiting factoron the purchase of implements. Since a substantial amount of grain acreage was necessary to warrant the purchase of a combine, smaller farms had to hire out their harvesting on a contract basis. In 1933, the average size of the Palouse farm with one or more combines was 611 acres while the average for those without was only 235 acres.

In order to manage a dry-land wheat farm efficiently, massive machinery capable of performing rapid work is necessary to keep up with the required cultivation needs. Dry-land farming also must be done on a much more extensive scale than irrigated agriculture in order to produce adequate returns. Today, the Palouse is an area dominated by large-scale, cash-grain agriculture where one man and his equipment can farm a substantial acreage with little help except perhaps at harvest.

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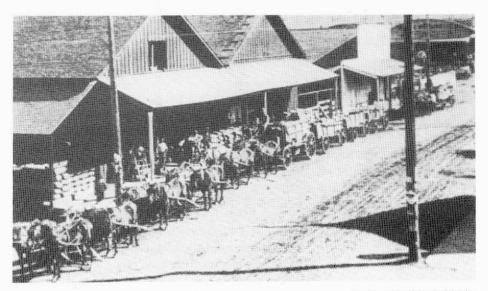
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-Washington State University Libraries

Freight lines kept the Palouse supplied with goods prior to the construction of railroads into the area.

Long Line Skinner: An Interview with Gilbert Slind

by Marvin G. Slind

The following article was transcribed and excerpted from an interview with Gilbert Slind on December 27, 1980. Mr. Slind immigrated to the La Crosse area from Selbu, Norway, in 1922. He farmed in Whitman County until 1953, when he moved to Burlington, Washington. The text of the interview has been edited for use in this issue.

The experiences that Mr. Slind recounts here are not unique. He was only one of many farmers in Whitman County who worked with horses and mules in the "good old days." And there were certainly other "long line skinners," such as Ted Torgeson of La Crosse, who also drove forty-four mules. Unfortunately, many of their experiences are now lost to us, as the early farmers and settlers have carried their memories to their graves.

The Whitman County Historical Society's Oral History Collection contains a growing number of interviews with individuals who lived in many parts of the county in the early twentieth century. Additional subjects for such interviews are still being sought. For more information regarding this project, contact Richard Hamm, the Whitman County Historical Society, Post Office Box 67, Colfax, Washington 99111.



-Gilbert Slind Photograph

Gilbert Slind and some of his mules. This photo was taken about 1935.

The Early Days

I started driving mules when I was thirteen, I guess; I started with Herb Weaver because his driver got sick. I was working for him, ya see; I was supposed to dump chaff. When I went to work on the combine, it didn't take the mules long to teach me what to do. Mules aren't as nervous as horses. They take things more gently. If it was a warm or hot day, you'd just give 'em their own speed and that was that. It seemed like, with a horse, the worse off he got, the more racket he wanted to make. When it came time to eat, a horse could eat enough to kill himself. A horse could eat four bundles of hav plus three gallons of grain. It's pretty hard to say what a mule would eat. But it was generally less than horses. They were easier to break too. All you had to do was tie 'em on a rig and let 'em take off. Horses were harder. The first week they were put to work you just about had to break 'em every morning. It was just easier to drive mules. Still it was mostly horses out there in the eastern part of the county—the western part had more mules than horses.

A lot of the farmers around La Crosse came up from Walla Walla where they were used to mules, I guess. When they came up here, they brought their mules with them. Ira Scott did, so did Weaver, the Zarings, and Dormans. They all came up from the Walla Walla country. They were all mule drivers.

But the Norwegians, they mostly used horses because they were scared of mules; mules were just as stubborn as the Norwegians. Well, thats not completely true. J.I. Wigen and Johnny (Wigen) both had mules—I guess J.I. had horses until he bought out his brother-in-law who farmed with mules. Then J.I. went to mules. But not many had fourty-four-head teams because up until the 1920's they were running stationary [threshing machines] and just had header boxes. A lot of them ran that kind of a setup clear up into the thirties. It took fifteen men to run one of those stationary operations. When I first started, they had stationary rigs and four header boxes. There were four or eight [horses] on the header. In those days [the eary twenties] they mostly used binders until the combines came. When the combines arrived the really big rigs used forty-four mules. But like in Adams County they didn't use as many mules because they didn't have the hills.

The Work Day

If we didn't get started working in the field before seven, then there was no need in going out in the forenoon. We used to get up at 4:30, feed the mules, harness 'em; they'd eat with the harnesses on. Then we lead 'em out and hitch 'em up, clean the barn, and come in for breakfast at 5:15. The engine [on the combine] started at six, and they were ready to go.

When we were in the field, we'd rest the mules at the top of every hill—just to given them a wind break. Then, we'd generally stop at what they called "quartering time" and grease the combines at about 9:00. That would take about fifteen minutes. Then we'd go again until about 11:30. Then, we'd unhook and put the teams in the barn then and give 'em an hour's rest. We'd take them out so they were hooked up by 1:00. We would rest more in the afternoon after we'd get to the top of a hill, after a hard pull. Generally, about 5:30 we quit.

The combines back then could be leveled. The Harris combine leveled on both sides. That's the kind of combine my dad first had. It leveled on both sides and had four racks on it. All you had to do was push a lever if you wanted to go down—push it toward the hill.

It wasn't hard to control the teams. You'd have a brake on the combine and the

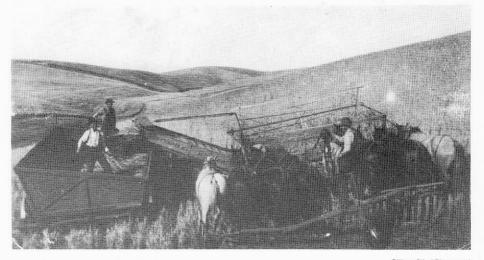


-Gilbert Slind Photograph

The J. Wigen Outift, 1923. "When we were in the field, we'd rest the mules at the top of every hill—just to given them a wind break."

mules knew what they were doing after the first time. You'd come down a steep hill and turn into it. the mules knew more about that than people. When the farmers first started driving tractors, they would come down a big grade and they'd want to turn "right now." If they'd have been hooked to one of those old-time combines, they'd have tipped it over on every corner.

For plowing we used nine and ten animals on a three-bottom plough and they'd go from twenty-one to forty-four on a combine.—that is, up until about 1927 when they got lighter combines. After that they cut the number of horses or mules in a team down to twenty-one. But on those old ground-power rigs [combined threshers that required a large wheel to drive the rest of the machine by a series chains and gears], they just changed and put engines on them. They were still big, heavy combines made out of wood.



"The John Kjosness" outfit circa 1919.

—Gilbert Slind Photograph

Machines and Low Prices End an Era

When I came here from Norway in 1922 farming was pretty good, you see. It was right after the World War. It stayed good until 1924. That year, we had a pretty poor crop; it was dry. From then on, we had good crops. By 1930 things began to change. Wheat was probably selling for sixty cents—around La Crosse it might have sold as a little as forty cents. But then the government came in, you know, and gave everybody the allotment. Why, then you could borrow from the government, you know, on your wheat. That brought the market up. But nobody else could buy any [wheat]. All over the world they were all broke.

Tractors started coming in [to the Palouse] about that same time—1929 or 1930—gasoline tractors. The first diesels came in '33. In '34-35 they flooded the county. We first started to buy them by trading off horses and mules for an International or a Cat. My dad sold some mules in 1934 and got \$200 apiece for them. I've seen what they call a "span of mules"—two of them—sell for as high as \$800. I've also seen a span sell for \$100. When the tractors came in, the mules and horses were mostly shipped south. By the end of the 1930's farming with horses in the Palouse pretty much ended.

Publications of Note

A Great Good Country: A Guide to Historic Moscow and Latah County, Idaho

by Lillian W. Otness Moscow, Idaho: Latah County Historical Society, 1983. 186 P. illus. \$10.00 (Local History Paper No. 8)

Those who think that the past can only be found enshrined in the pages of a dusty history book or perhaps encased in glass in a museum should pick up a copy of this book and take a walk through Moscow. The reason for the recent upsurge in interest in what has been referred to as "the built environment" is demonstrated in this well illustrated and well mapped volume. Here we find that the past is, literally, all around us.

Organized in the form of walking and driving tours (eight in Moscow and five outside Moscow) the author—a Moscow native—mixes anecdote, fact, architectural details (visible and invisible), photographs and drawings to make real the relationships between the past and the constantly changing present. For example, Sterner's Studio (entry number 46) at 521 South Main in Moscow, a charming Spanish-style building with an arched entry and a red tile roof, was built in 1926 on the site of an earlier blacksmith shop converted to a photo studio in 1904. The new building continued to be used as a photo studio until 1958 when it was converted to a tavern. The parenthetical note over the drawing on the facade (by Moscow's Liz Mowrey) identifies it as the Spruce Tavern. The specific site of the building is identified on the street map on page nine.

Comparable detail is provided for each of the 363 identified sites. They are located for the traveler (even the armchair traveler) in both space and time. Many are illustrated with detailed drawings or early photographs to ensure identification. And, as well, some sites with few visible remains are also included, places like Nora (247), Neva (288), Collins (283), Camp Eight (282), and Woodfell (230)—all remnants of Latah County's mining and lumbering past. The often intentionally overlooked elements of that checkered past are not left out here; included are today's taverns (46) and yesterday's saloons (18) and buildings once described as "female boarding houses" (90).

Attractively designed and very readable, A Great Good Country's major fault lies in the reproduction of some of the illustrations and photographs as tiny marginalia. The early photograph of Kendrick's main street is reproduced only 1 3/8"x13/16" in size. Most, however, have been better served. In addition to a brief introduction to Latah County's history (unique as the only county in the country created by an act of Congress), the guidebook also includes introductions to each of the tour areas (including the University of Idaho and a "literary" tour based on the life and novels of Moscow author Carol Ryrie Brink), a bibliography, a glossary of architectural terms, an index (to site numbers, not pages), and an index to Moscow street addresses included in the guide.

Incidentally, author Otness was the recipient last fall of the Prestigious American Association of State and Local History award for volunteers based on her work on this volume and her many years of support and assistance of the Latah County Historical Society.

—Terry Abraham