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Agriculture in Marion, Polk, and Yamhill Counties

Agriculture is the longest-standing industry to exist in Oregon and in the Mid-Willamette Valley. In fact, long before America's westward expansion of the 19th century and before Lewis and Clark's famous expedition that led them to the Oregon territory, Native Americans in the area already had an agriculture industry at work that included hunting, trapping, harvesting, and preserving food. On Lewis and Clark's expedition they documented the plants growing in the region and also wrote about the agricultural practices of the Native Americans in the area.

The way the industry appeared in the early 1800s would have been almost unrecognizable compared to what the industry has evolved to more than 200 years later in what is now the state of Oregon.

As Oregon grew as a territory and later becoming the 33rd state to join the Union, agriculture has always been a vital part of the economy. Nowhere is that more apparent than in the Mid-Willamette Valley where it continues to be the largest traded sector of the economy.

Acreage and Sales

In 2011 Marion, Polk, and Yamhill counties (Workforce Region 3) comprised 10 percent of Oregon's total harvested acreage. However, the three counties comprised just over 18 percent of the state's gross farm sales in 2011. The fact that the three counties generate more than 18 percent of the state's gross farm sales on only 10 percent of the state agricultural acres helps illustrate just how productive the Willamette Valley's agriculture land is.

Table 1 below shows the top 5 commodities ranked by gross sales for each county within Region 3. Nursery crops were the top commodity in both Marion and Yamhill County for 2011. Oregon's nursery industry has been very hard-hit in recent years due to the dramatic downturn

Top 5 Commodities by County: 2011						
Rank	Marion County		Polk County		Yamhill County	
	Commodity	Sales	Commodity	Sales	Commodity	Sales
1	NURSERY CROPS	\$134,700,000	DAIRY PRODUCTS	\$29,347,080	NURSERY CROPS	\$82,158,000
2	DAIRY PRODUCTS	\$72,441,600	CHRISTMAS TREES	\$15,571,830	WINE GRAPES	\$30,160,000
3	CHICKEN EGGS	\$41,470,000	WHEAT	\$13,332,813	DAIRY PRODUCTS	\$22,540,000
4	GREENHOUSE CROPS	\$40,790,000	BROILERS	\$12,825,000	TALL FESCUE	\$15,679,440
5	PERENNIAL RYEGRASS	\$36,890,000	TALL FESCUE	\$12,382,512	WHEAT	\$10,996,875

Source: Oregon Agricultural Information Network

Table 1

in the nation's housing market. As housing starts plummeted in the U.S., gross sales for Oregon's nursery industry followed suit. In Marion County nursery sales hit a high point of nearly \$144 million in 2007. By 2009, sales had dropped to \$111 million, nearly a 23 percent decline from 2007. Marion County's nursery crop sales have rebounded since 2009, reaching sales of \$134 million in 2011.

In Yamhill County, nursery crops experienced an even steeper decline in sales than Marion County did. Nursery sales reached a high of nearly \$133 million for 2007 in Yamhill County. In 2011 nursery sales in Yamhill County were \$82 million; a 38 percent decline from the high of 2007.

Yamhill County has been fortunate that their second largest commodity, wine grapes, have weathered the recession better than the nursery industry. After posting relatively small declines in gross sales in 2009 and 2010, Yamhill County's wine grape sales hit an all-time high of \$30,160,000 in 2011; the first time wine grape sales had exceeded \$30 million in the county.

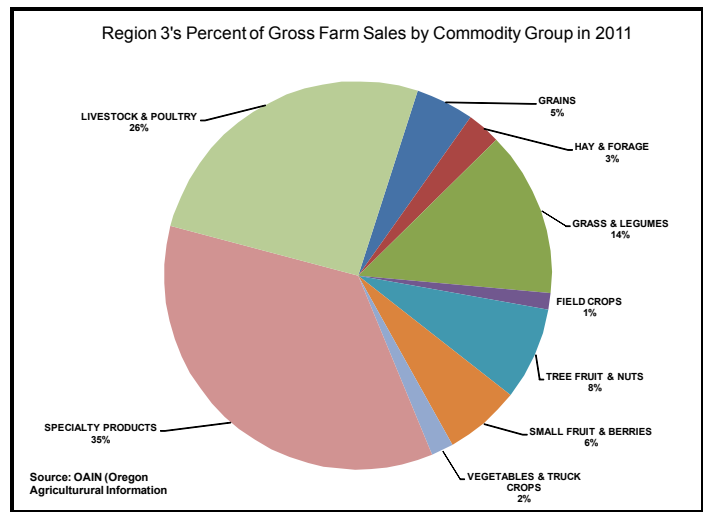


Chart 1

Although nursery crops are not as large of an industry in Polk County, compared to Marion and Yamhill counties, as of 2008 it was Polk County's fourth largest commodity. In 2008 nursery sales in Polk County were nearly \$19 million. By 2011 Polk County's crop sales were less than \$7 million; a 65 percent drop in gross sales since 2008.

The grass seed industry is another important part of Region 3's agricultural sector that has also been hard-hit by the national housing downturn. A significant number of grass seed farmers in the valley have put at least a portion of their acreage in to wheat production due to the lack of demand in the grass seed market.

Chart 2 shows the growth in Region 3's gross farm sales over the past 36 years adjusted for inflation. From 2002 to 2007 gross farm sales in the region grew at a very fast pace compared to the preceding decades. That was to be followed by an extremely sharp decline, as gross sales dropped 22 percent from 2007 to 2009. In hindsight we can see how much of the region's rapid growth in sales between 2002 and 2007 was tied in with the nation's housing bubble; the nursery and grass seed industry being the most visible. After witnessing sales

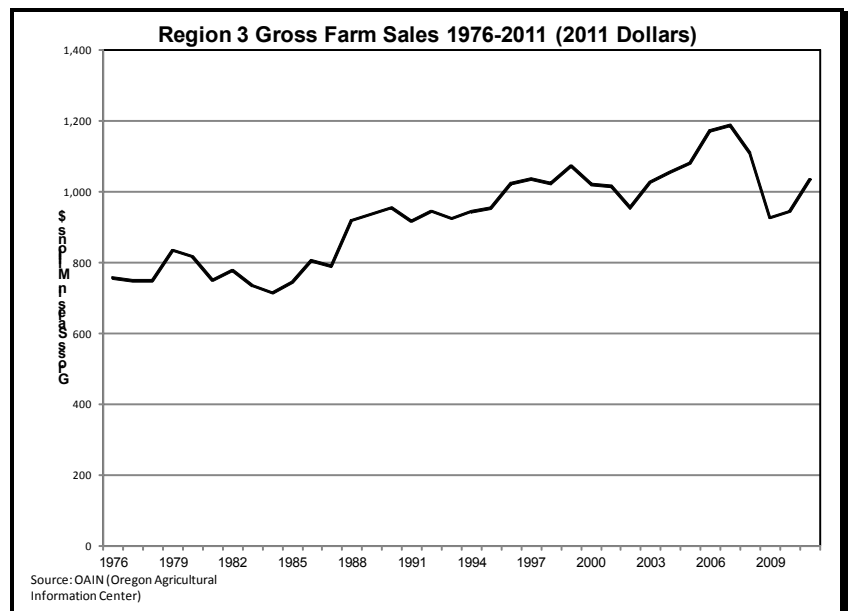


Chart 2

dropping to \$883 million in 2009, sales in 2011 have grown and again have crossed the one billion dollar mark, reaching \$1,032,791,000 in gross sales.

Acreage Reduction

According to the Census of Agriculture, from 1954 to 2007 the number of acres actively used for agriculture has contracted 16.3 percent in both Marion County and Yamhill County, losing 60,107 and 91,726 acres respectively. Over the same period of time Polk County's acreage was reduced 33.6 percent or 70,658 acres.

Oregon's agricultural acreage from 1954 to 2007 shrunk 22.1 percent, or more than 4.6 million acres.

There are a number of factors that have played in to the reduction in the number of acres being used in agriculture. Urban growth expanding out and converting agricultural land in to housing is certainly one reason.

Another big factor in the post World War 2 era has been the increased productivity farmers have achieved through improved farming methods and technological innovation. During World War 2, nitrogen was one of the main components for the explosives used in bombs. The U.S. government built 10 new plants to supply nitrogen for bombs during the war. Following the war, those plants produced ammonia for fertilizer. The increased availability of fertilizers as well as farmers and scientists having a better understanding of how important nutrients were to crops allowed agriculture's "green revolution" to continue at a fast pace with significantly higher yields per acre.

Agriculture as a Share of GDP

The Bureau of Economic Analysis (BEA) provides us with estimates of gross domestic product (GDP) for metropolitan areas in the United States. Yamhill County is included in the estimates for the Portland Primary Metropolitan Statistical Area (PMSA), but we are not able to look at Yamhill County separately from the Portland PMSA. Fortunately, Marion and Polk counties are published together as the Salem Metropolitan Statistical Area (MSA). This should give a good idea of how big of a part agriculture plays in the Mid-Willamette Valley economy.

Gross domestic product, or GDP, is simply measuring the market value of all officially recognized final goods and services within an area. The most recent year that GDP data is available for the Salem MSA is 2009. In 2009 Salem's total GDP across all industries was \$12.45 billion. Agriculture, forestry, fishing, and hunting comprised \$752 million or 5.2 percent of the Salem's GDP. Looking at data from 2009 somewhat understates the agriculture industry's economic impact on the area since 2009 was a recent low point in gross farm sales, as was shown in Chart 1 on the previous page. If we were to look at a year prior to the housing bubble bursting we see agriculture comprising a larger share of Salem's GDP. In 2006 for instance, agriculture, forestry, fishing, and hunting comprised 6.4 percent of Salem's total GDP. Accounting for 6.4 of Salem's GDP may not sound like that much, but when compared to the national average it reveals just how large the industry is. Salem's agriculture, forestry, fishing, and hunting sector contributed more than 12 times more to the GDP than what the national average was in 2006. Even in a down year like 2009, the sector contributed 10 times more to Salem's GDP than the national average.

A complimentary industry that is closely tied to agriculture is food processing. Food and beverage and tobacco product manufacturing in the Salem MSA accounted for \$383 million or 3.3 percent of Salem’s total GDP. Nearly all of that industry is comprised of food manufacturers in the Salem MSA; wine makers are included under beverage manufacturing, but Salem has no tobacco manufacturing. Food and beverage manufacturing in Salem contributes about two-and-one-half times the national average in terms of its local share of GDP.

If we look at the agriculture, forestry, fishing and hunting sector and the food and beverage manufacturing sector together, they combined to make up 8.5 percent of the Salem MSA’s GDP.

Even though we don’t have GDP data specifically for Yamhill County, the next section where employment data is covered will show that Yamhill County is quite similar to the Salem MSA. It is safe to assume that a similar share of Yamhill County’s GDP would come from the county’s agriculture sector.

Agriculture’s Economic Footprint

In order to look at the economic footprint that agriculture has in Marion, Polk, and Yamhill counties we can analyze the region using IMPLAN. IMPLAN is a national input-output model. So far in this report we have focused on what would be direct expenditures and employment within agriculture. IMPLAN allows us to estimate direct expenditures and also allows us to estimate other expenditures and

Agriculture's economic footprint in Marion, Polk, and Yamhill County (2010)			
Aggregated sector	Output--Sales	Employment (full- and part-time jobs)	ValueAdded
Production	1,144,694,434	15,685	597,212,541
Processing	2,829,804,688	6,924	540,088,237
Ag. Support services	111,791,720	3,664	82,896,880
Food services and drinking places	699,804,416	13,264	372,432,832
Subtotal--Production, processing, ag. Support services, and food services and drinking places	4,786,095,257	39,538	1,592,630,490
Wholesale trade	839,053,632	4,667	659,047,104
Transportation & Warehousing	693,038,784	8,000	354,231,552
Retail trade- Food and beverage	225,896,160	4,155	164,363,600
Total agriculture	6,544,083,833	56,360	2,770,272,746
Total all sectors	26,731,101,231	242,054	15,161,311,739
Portion agriculture (%)	24.5%	23.3%	18.3%

Source: IMPLAN year 2010 data

Table 2

jobs that are associated with agriculture in Region 3. Each of the agriculture related industries listed in table 2 purchase a wide range of inputs from other suppliers. Those purchases are known as indirect expenditures. One other type of expenditure includes those that members of households make when they receive salaries or other income from businesses directly or indirectly related to agriculture; they are known as induced expenditures. Induced expenditures would include purchases of food, clothing, housing, healthcare, and many other things that households purchase.

The output, employment, and value-added measures of the direct, indirect, and induced expenditures add up to the “economic footprint” of the agriculture industry in Region 3; summarized in table 2.

The economic footprint estimates for Region 3 are a rough attempt to replicate the statewide estimates produced in the 2011 report, “Oregon Agriculture and the Economy: An Update.” The report was produced by the Oregon State University Extension Service Rural Studies Program for the Oregon Department of Agriculture.

Agriculture’s economic footprint in Region 3 is larger than what we find statewide. It shouldn’t be a surprise considering the high concentration of agriculture we have in Region 3. Region 3’s sales output shows agriculture representing 24.5 percent of the region’s total sales output in 2010; agriculture represented 17.6 percent statewide in 2009 according to the report from OSU extension cited in the previous paragraph.

Agriculture represented 18.3 percent of Region 3’s total value added; that compares with 14.9 percent statewide. Agriculture represented 23.3 percent of Region 3’s total employment; that compares with 19.4 percent statewide.

Agriculture Employment

Region 3’s 2011 annual average employment in the agriculture sector was 8,317, with a total payroll of more than \$205 million. The vast majority of those jobs were within crop production which accounted for 7,652 jobs and nearly \$186 million in payroll. The remaining 665 jobs and \$20 million in payroll were in animal production. Region 3’s food manufacturing employment for 2011 was 5,514 and nearly \$164 million in payroll. Beverage manufacturing employment in 2011 was 1,378 with \$43 million in payroll.

As a group, agriculture, food manufacturing and beverage manufacturing had a total of 15,209 jobs in 2011 with payroll of nearly \$413 million. That represented 11.3 percent of all the private sector jobs in Region 3 and 9.3 percent of the region’s private sector payroll.

In order to compare our local area with the nation, we need to look back to 2010 employment data. Comparing data for Marion, Polk and Yamhill counties with the nation shows what a high concentration of employment Region 3 has in agriculture and food and beverage manufacturing.

Marion and Polk counties both have more than ten times the concentration of employment in crop production than is found nationwide. Yamhill County’s employment concentration in crop production is even higher; more than 14 times what is seen nationally.

Looking at food manufacturing employment, Marion County’s concentration is more than three times the national average. Polk County has more than four times the employment concentration that is found nationwide. Yamhill County’s food manufacturing concentration is slightly higher than the national average, but Yamhill County’s beverage manufacturing has nearly 20 times the concentration found nationally; this is the industry where employment is counted for Yamhill County’s wine makers. For comparisons sake, Sonoma County, California has 24 times the concentration of employment in beverage manufacturing that is found

nationally. Polk County has a high concentration of beverage manufacturing employment as well; more than ten times the national average.

Conclusions

Agriculture and its related industries have played an essential role in the Mid-Willamette Valley's economy before Oregon ever became a state. Changing markets, changes in consumer preferences, and changes in technology will continue to change the composition and appearance of the region's agriculture sector, but agriculture will continue to play an important role in the region's economy in to the future.