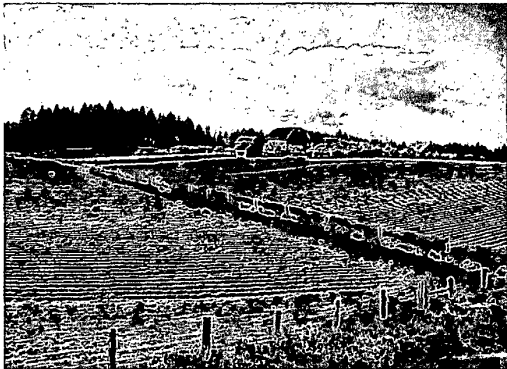

*Analysis of the Agricultural
Economic Trends and Conditions in
Clark County, Washington*



**Prepared for Clark County, Washington
By Globalwise, Inc.**

April 16, 2007

Preliminary Report

Acknowledgements

Many people were contacted during this analysis and their time and perspectives are gratefully acknowledged. The full list of contacts is at the end of the report in Appendix E.

Photographs used in this report are from several sources. Charles Brun, Clark County Extension Office, generously offered photos from his extensive digital photo library. Historical photos are from the archives of the Clark Conservation District, and include one from Al Monner. Staff at the County also generously shared photos.

Many staff in the departments of Community Planning and Assessment and GIS have been very helpful during the course of this analysis. Their assistance with retrieving data and assisting with the GIS maps, data tables and related information collection is greatly appreciated.

Executive Summary

Clark County has grown and changed remarkably in the last 50 years. One industry that has not shared in that growth is agriculture. In fact, agriculture in Clark County has been in general decline for decades. This report documents many of the changes, assesses current conditions and evaluates the effects of the expansion of the county's Urban Growth Boundaries on agriculture.

The county's traditional agricultural enterprises include dairy, cattle, fruit and vegetable production. All of these sectors are in decline. The most promising sector is plant nurseries. Christmas tree production has probably reached its plateau. Small scale livestock operations such as sheep and goat farms are found in small numbers throughout the county, as are diversified fruit and vegetable operations which generally engage in direct marketing. Food processing in the county is not linked to county production, except for the lone remaining milk bottling plant.

As the overall economy of Clark County increases, agriculture is a shrinking share. In 2004, agriculture employment accounted for about one percent of the county's total employment. Local agriculture also does not contribute very significantly to local food manufacturing. The analysis of the Clark County economy for 2004 showed that less than four percent of the county's food processing is contributed from within the county when measured by the value of county raw product inputs as a percentage of the value of output (Table 15).

Economic data from the Bureau of Economic Analysis shows that total farm income in Clark County has been steadily declining. During the period of 1969 to 2004, farm income peaked in 1973 at \$41.8 million and was lowest in 2002 at \$6.3 million (all in 2004 dollars, see Figure 1). Farm income rebounded somewhat in 2003 and 2004 from the low in 2002. In 2004 the average Clark County farm proprietor's income was \$10,560 (Figure 2). This reveals the part-time nature of farming in the county.

Lack of income and profit by farmers in Clark County has led to reduced land area in commercial farming. Reliable estimates are not available of how much commercial farm land has gone out of production over time. The one long term source of data on farmers and farm land is the U.S. Census of Agriculture and it is not limited to tracking commercial farming. This data source reports a mix of commercial agriculture with land owners who conduct non-commercial agricultural activities.

For this analysis, farms in Clark County were identified that are now actively engaged in commercial sales of farm and agricultural products. This study has identified 145 farms with 3,115 acres in production. Some of these farms are also leasing or renting additional land for their operations and this acreage is not reflected in the total.

The 2002 Agriculture Census reports that there were 1,596 farms with 70,694 acres. However, over half of these farms had sales of less than \$2,500. Much of what the Agriculture Census is reporting is rural acreages that are comprised of the land area associated with the homes of rural residents who combine non-commercial agricultural

activities with their rural lifestyle. The 2002 Agriculture Census does report 170 farms with gross income of \$25,000 or more.

Much more land is in the current use farm and agriculture program than is commercially farmed. As of 2006 there is a total of about 48,450 acres in these designations in the county. Over 95 percent of the acreage was placed in the program from the time the program began in the early 1970's through 1993. The remaining five percent (2,150 acres) are parcels that were placed in the current use program after 1993. The acreage being placed in current use for farm and agriculture designation is declining rapidly.

Based on analysis of the most active farms currently in Clark County, about 28 percent of the land (868 acres) in these farms is within the cities' incorporated areas, adopted UGAs and Preferred Alternative UGA boundary. Inevitably, some or even most of this land will go out of production. However, historical trends and existing conditions indicate that the action to expand the UGA boundary is not the cause for the diminishing long term commercial significance for agricultural production from these lands. The land markets have already signaled that farmers will not bid for land for its agricultural productive capacity at prices equal to what buyers for homes and other development uses will pay. Farming much of these land areas is not viable for the long term even though the following actions have been taken: 1) the county's agricultural zoning limits development, 2) land owners can receive greatly reduced property taxes through current use farm and agricultural land designation and 3) technical assistance is offered to farmers through WSU Extension's various United States Department of Agriculture incentive programs.

Rapidly escalating land prices in the County have created a major barrier for new farmers to enter this business. Intervention in the land market by actions such as purchase of development rights is the only assured way of holding land for agriculture. However, most often these types of land resource programs also need to be implemented with other farmer support programs to guide the agricultural industry to greater prosperity in a highly urbanizing county. Clark County does not have the full array of agricultural support programs in place.

Competitive economic forces among agricultural producers determine who has the right products at suitable prices to meet customer demand. Consumer demand can alter the dynamics of the market and change the course of an industry. Demand for locally produced food and other agricultural products is probably the most encouraging prospect for Clark County farmers. However, the growth in local demand and the prices consumers are willing to pay is not sufficient to reverse the longstanding trends of declining farm activity or to encourage large numbers of farmers to locate in Clark County.

Current Contributions of Agriculture to the Economy of Clark County

This section describes the characteristics of Clark County's present agricultural economy, beginning with descriptive data on employment and agricultural businesses. Analysis is then presented for how the removal of all agricultural land by expansion of UGAs under Alternatives 2 and 3 would impact related sectors such as food processing as well as the indirect and induced economic losses that affect the entire local economy. Later in this report, analysis is given of changes in the county's agricultural economy from 1994 to 2004 and data is presented for agriculture's contributions relative to the total economy of Clark County.

Covered Employees and Establishments

The Washington State Employment Security Department tracks the number of agricultural employees that meet unemployment insurance requirements. These covered employees' can include workers on corporate farms, regular (steadily employed) workers on small farms and proprietors who choose to pay into the unemployment insurance system. The Employment Security Department also tracks the number of farms reporting to the unemployment insurance system (covered employment), and the annual reported employee earnings (covered earnings). Because many farm proprietors do not opt into the unemployment insurance program and temporary workers do not meet unemployment insurance requirements, Washington State Employment Security Department employment figures under estimate the actual number of agriculture workers in Clark County. However, the covered employment numbers are included to provide a minimal count of the county's agricultural workforce and farms and this gives a reasonable directional trend for employment over time.

Table 9 shows covered employment data for the four-year period 2002 to 2005. In 2005 there were 454 covered employees in agriculture, with 319 working in crop production and 135 working in animal production. The average crop production worker earned \$15,263 (up from \$11,257 in 2002), while the average animal production worker earned \$23,186. The difference in earnings is probably due to the seasonal nature of crop production. In 2005 there were 88 agricultural farms reporting, 64 of which were producing crops (down from 67 in 2002) and 24 were raising animals.

Covered food manufacturing workers are also included in Table 9. There were 29 reporting food manufacturing farms in 2005 with 1,103 employees earning an average of \$41,514 annually.

Table 9 – Agricultural and Food Manufacturing, Covered Employment, Average Earnings and Reporting Establishments in Clark County, 2002-2005				
	2002	2003	2004	2005
Average Agricultural Employees	454	449	460	454
Crop Production	331	333	339	319
Animal Production	123	116	121	135
Average Annual Agricultural Earnings	\$14,430	\$14,247	\$15,402	\$17,619
Crop Production	\$11,257	\$11,307	\$12,525	\$15,263
Animal Production	\$22,969	\$22,690	\$23,465	\$23,186
Agricultural Firms Reporting	91	90	86	88
Crop Production	67	67	63	64
Animal Production	24	23	23	24
Average Food Manufacturing Employees	1,150	1,183	1,140	1,103
Average Annual Food Manufacturing Earnings	\$37,817	\$37,939	\$42,277	\$41,514
Food Manufacturing Firms Reporting	29	32	29	29

Source: Washington State Employment Security Dept., Covered Employment and Wage Series (ES-202).

Community Economic Impacts

In this study an "Impact Analysis for PLANing" (IMPLAN) economic impact analysis model of Clark County is utilized to determine the direct, indirect and induced impacts of the loss of agricultural acreage under Comprehensive Plan Alternatives 2 and 3. See Appendix B for a brief discussion of the impact analysis methodology.

This assessment assumes that all agricultural land inside the growth management area is completely removed from production. It also assumes that the diminished production is not replaced elsewhere in the county. Note that this assessment also does not consider resulting economic impacts from future uses of the removed agricultural land. The additional contributions to the economy of Clark County from the new land uses could be very substantial, especially if significant land area is devoted to industrial uses which bring new jobs.

Several negative impacts ensue from the loss of agricultural lands that would lead to other economic losses in the county. First, workers on some farmland would lose their jobs and earnings and this would mean their household consumption and expenditures would decrease in the local economy. This leads to direct, indirect and induced losses of jobs and income by others in the county.

A second direct impact results from the reduction in local business purchases by affected farmers. Some local businesses and individuals that rely on purchases from farms would in turn terminate employees and this would ripple through the local economy with further negative impacts.

The value of agricultural output that would be removed under Alternatives 2 and 3 was estimated using two steps. First, Clark County GIS data was used to estimate how many acres of each type of crop would be reduced under each alternative. The acres removed were converted into percentages of that crop's total acreage. The percentage of acreage removed from each crop was then used to estimate the value of removed production, based on the IMPLAN crop output levels. Each crop's reduced value was then entered in the IMPLAN model. See Table 10 for these reductions.

Table 10 – Estimate Value of Direct Agricultural Output Production Loss in Clark County Under Comp Plan Alternatives 2 & 3, 2006

Agriculture Sector	Alternative 2	Alternative 3
Vegetable & Melon Farming	-\$6,120	\$0
Fruit & Berry Farming	-\$1,036,920	-\$1,468,970
Greenhouse & Nursery Farming ¹	-\$948,600	-\$1,384,960
Hay & Other Crop Farming	-\$739,550	-\$316,950
Cattle Ranching & Dairy	-\$1,084,050	-\$1,192,460
Total Direct Loss	-\$3,815,240	-\$4,363,340

¹Greenhouse & Nursery Farming include Christmas tree farms.

Source: IMPLAN model economic analysis

A summary of the total loss to Clark County's economy from the agricultural land losses is presented in Table 11. For both Alternative 2 and Alternative 3 of the Comp Plan, economic impacts are given as direct impacts, indirect and induced impacts, and total impacts. Direct impacts are the value of agricultural production loss stemming directly from the reduction of agricultural acreage assuming each alternative was adopted and brought into the UGAs. Indirect impacts are the losses to businesses that supply goods and services to the agricultural production industry. Induced impacts are losses to businesses resulting from the lost earnings of workers in directly and indirectly affected industries. Therefore induced losses reflect the diminished spending power of employees. Total impacts are the sum of direct, indirect and induced losses.

Each row in Table 11 shows the means through which the county is economically affected. Output is the total production value lost for all industries under the scenarios. Other property income is the loss of corporate profits, and the loss from interest, rents, dividends and other non-labor income sources. Indirect business taxes are excise and sales taxes paid by individuals to business during their everyday transactions. Negative indirect business tax figures indicate a loss of government revenue. Labor income is the earnings and benefits received by employees, including self-employed workers. The employment figure is the loss of full and part-time jobs in the county, including self-employed workers.

Table 11 – Summary of Clark County’s Total Economic Impact Due Solely to Loss of Agricultural Acreage Under Comp Plan Alternatives 2 & 3, 2006						
	Comp Plan Alternative 2			Comp Plan Alternative 3		
	Direct Impact	Indirect & Induced	Total Impact	Direct Impact	Indirect & Induced	Total Impact
Output	-\$3,815,240	-\$1,537,668	-\$5,352,908	-\$4,363,340	-\$1,791,580	-\$6,154,920
Other Property Income	-\$876,978	-\$358,171	-\$1,235,149	-\$960,159	-\$415,239	-\$1,375,398
Indirect Business Taxes	-\$85,323	-\$85,546	-\$170,869	-\$95,827	-\$99,817	-\$195,644
Labor Income	-\$979,295	-\$439,056	-\$1,418,351	-\$1,229,012	-\$518,284	-\$1,747,296
Employment	-82	-16	-98	-99	-19	-118

Source: IMPLAN using 2004 Clark County data.

A detailed estimate of the amount of tax revenue lost to the state and county from the loss of agricultural land is presented in Table 12. The total tax revenue lost under Alternative 2 is estimated to be \$187,826. Over half of this loss is from sales tax loss (estimated at \$95,346) and almost a fourth is from an estimated \$42,719 loss of property taxes. The total tax revenue lost under Alternative 3 is estimated to be \$215,204. The loss of sales tax revenue is \$109,189, and the loss of property tax revenue is \$48,975. Again, the reader is reminded that this analysis is not considering the contributions that other land use will add to the county economy. This is merely addressing the losses from the loss of agricultural production if agricultural land is completely removed in the two expansion areas.

Table 12 – Summary of State and Local Tax Impacts Due Solely to Loss of Clark County Agricultural Acreage Under Comp Plan Alternatives 2 & 3, 2006

State and Local Taxes	Alternative 2	Alternative 3
Sales Taxes	-\$95,346	-\$109,189
Property Taxes	-\$42,719	-\$48,975
Unemployment & Workers Comp.	-\$760	-\$957
Other Taxes	-\$11,490	-\$13,209
Motor Vehicle License	-\$2,515	-\$3,012
Fees, Fines and Donations	-\$10,941	-\$13,071
Dividends	-\$24,055	-\$26,791
Total State & Local Taxes	-\$187,826	-\$215,204

Source: IMPLAN using 2004 Clark County data.

Agriculture and the Clark County Economy – Changes from 1994 to 2004

Agriculture's changing economic relation to the rest of Clark County's economy is best viewed relative to changes happening in the entire county economy. Descriptive IMPLAN models of the county were created for 1994 and 2004 to assess these changes. The resulting aggregated industrial tables are presented in Appendix C, and the following descriptions of Clark County's economy closely follow Tables C-1 and C-2 presented in the Appendix. Dollar figures are in 1994 and 2004 dollars respectively, and have not been adjusted for inflation. These tables were created using different sectoring schemes making direct comparison of individual sectors difficult. A brief explanation of this is given at the bottom of Appendix C.

Agricultural Sector Changes

Clark County grew rapidly in the period from 1994 to 2004, both in population and in the size of its economy. Although population increased nearly 40 percent, the local economy was able to expand to meet the demands of that growth. The county's total industrial output nearly doubled in this period from just over \$11 billion in 1994 to nearly \$20.3 billion in 2004. Labor income also nearly doubled from \$3.6 billion in 1994 to \$6.8 billion in 2004. Other value added, which includes corporate and property income as well as taxes, increased from \$2.4 billion in 1994 to \$11.2 billion in 2004.

The agricultural industry in Clark County has faced tremendous pressure from encroaching development and rising land costs in the last decade. These pressures have led to an overall loss of farm production. In 1994, Clark County's total agricultural output was nearly \$93 million, or 0.8 percent of total county output. By 2004, Clark County's total agricultural output had shrunk to \$83.6 million, which by now had become only 0.4 percent of Clark County's total output. Labor income, which includes wages and benefits, declined from about \$34 million in 1994 to \$21 million in 2004, a decline of 38 percent. Other value added however, which includes corporate profits, property income and indirect business taxes, increased over the same period from \$25 million in 1994 to \$40.7 million in 2004.

The crop production sector of agriculture was affected the most from agricultural land being taken out of production. Total crop production was \$52 million in 1994, and the crop sectors employed an estimated 1,286 people. By 2004, total crop production was less than half that at \$20.7 million, and now employed just 380 people. Some of this loss is due to the move of some traditional crop production into the greenhouse and nursery sector, which grew significantly over the decade. The greenhouse and nursery sector, which includes Christmas tree farms, increased output between 1994 and 2004 from about \$5.5 million to nearly \$19 million. That growth caused an estimated 415 increase in the number of greenhouse and nursery jobs. The growth of greenhouses and nurseries is an example of a growing agricultural sector in Clark County.

The beef and dairy cattle sector data presents an interesting contradiction that is most likely due to changes in the nature of cattle herds in the county. Cattle output fell from \$25.6 million in 1994 to \$21.6 million in 2004. At the same time, labor income decreased from almost \$12 million in 1994 to only \$1 million in 2004, yet employment rose from 270 in 1994 to 499 in 2004. The loss of labor income can be attributed mostly to proprietors, who lost 99 percent of their share of labor income between 1994 and 2004. Hired employee earnings in this sector decreased 49 percent over the same time period. The decreased proprietor income coupled with high employment level in the beef and dairy cattle sector suggests that a larger percentage of the county's cattle are being raised on small farms now, instead of in commercial sized herds. A theoretical example of a small cattle farm is a farmer who raises two steers, slaughters one for the household's consumption and sells the other. This farmer is counted as a cattle sector proprietor employee, and yet has little or no income to show for it.

The poultry and egg production sector grew from an output of almost \$5 million in 1994 to nearly \$15 million in 2004. The sector's employment grew as well, from 32 jobs in 1994 to 82 jobs in 2004. This sector, along with the greenhouse and nursery sector are the only agricultural sectors that have been able to significantly increase their production value over the last decade.

Other animal production increased from almost \$2.5 million in 1994 to \$4 million in 2004. There were an estimated 127 employees in this sector in 1994 and 307 employees in 2004. Other animal production includes pigs, sheep, goats, llamas, horses, rabbits and any other animal produced in the county. This sector may see growth if niche animal production in the county continues to grow.

The agriculture and forestry services sector is important to note. This sector includes horse stables, another business that may be directly affected by the removal of agricultural land. Unfortunately, this sector also includes logging which dominates the sector, so the change in commercial value of horse stables in the county is impossible to separate here. However, the agriculture and forestry services sector is included when reporting the agriculture industry output, employment, labor income and other value added totals.

Another industry that is often considered as part of agriculture's industrial complex is food manufacturing. Clark County's food and beverage manufacturing industry grew at a faster rate than Clark County's economy as a whole between 1994 and 2004. In 1994 the food manufacturing sectors produced \$308 million worth of food and beverages, almost 2.8 percent of the county's entire economy. By 2004 the industry had more than doubled its output to \$679 million, or 3.3 percent of the county's economy. Food manufacturing is not included when reporting agricultural industry totals.

Tables 13 and 14 provide more detail about specific Clark County crops and their economic contributions to the county. Table 13 shows detailed crop values for output, employment and labor compensation in 2004, and Table 14 shows the same for 1994. Once again due to changes in industrial classification, not all sectors are directly comparable.

Table 13 – Economic Contributions of Agriculture in Clark County, 2004

Agricultural Sector	Industry Output (1,000s)	Total Employment	Labor Income (1,000s)
Grain Farming	\$244	17	\$45
Vegetable & Melon Farming	\$1,223	19	\$382
Fruit & Berry Farming	\$8,641	187	\$2,315
Hay & Other Crop Farming	\$10,565	157	\$2,323
Greenhouse & Nursery Production	\$18,972	511	\$9,728
Cattle Ranching & Dairy	\$21,681	499	\$1,011
Poultry & Egg Production	\$14,767	82	\$2,265
All Other Animal Production	\$4,039	307	\$365
Totals	\$80,132	1,779	\$18,434

Source: IMPLAN and BEA Regional Economic Information System (Table CA25) using 2004 Clark County data.

Table 14 – Economic Contributions of Agriculture in Clark County, 1994

Agricultural Sector	Industry Output (1,000s)	Total Employment	Labor Income (1,000s)
Food Grains	\$123	4	\$50
Feed Grains	\$454	9	\$184
Vegetable & Farming	\$4,659	52	\$2,084
Tree Nut Farming	\$199	3	\$87
Fruit & Berry Farming	\$41,885	886	\$11,673
Miscellaneous Crops	\$19	1	\$7
Grass Seeds	\$168	19	\$33
Hay and Pasture	\$4,950	312	\$1,707
Greenhouse and Nursery Products	\$5,469	96	\$2,758
Cattle Ranching & Dairy	\$25,585	270	\$11,910
Poultry & Egg Production	\$4,949	32	\$1,264
All Other Animal Production	\$2,449	127	\$931
Totals	\$90,909	1,811	\$32,688

Source: IMPLAN and BEA Regional Economic Information System (Table CA25) using 1994 Clark County data.

The Food Manufacturing Industry

With the notable exception of a few sectors, the food manufacturing industry in Clark County purchases very little from local agricultural producers. Consequently, local agriculture benefits very little from the presence of the county's larger food manufacturing businesses. This divide between local agricultural production and local food manufacturing has increased over the past ten years.

Tables 15 and 16 show the food manufacturing sectors output for 1994 and 2004. The far right column shows the value of Clark County agriculture that is purchased by the manufacturing sectors. Once again, due to industry reclassification in 2001, the sectors may not be directly comparable.

Table 15 – Local Agricultural Contributions to Food Manufacturing Sectors, Clark County, 2004 (1,000s)		
Food Manufacturing Sector	Sector Output (Sales)	Local Agricultural Inputs Supply
Fluid milk manufacturing	\$55,355	\$15,070
Animal, except poultry, slaughtering	\$10,474	\$3,910
Other snack food manufacturing	\$394,778	\$2,910
Ice cream and frozen dessert manufacturing	\$29,618	\$920
Meat processed from carcasses	\$8,199	\$550
All other food manufacturing	\$2,938	\$390
Fruit and vegetable canning and drying	\$15,496	\$340
Wineries	\$5,266	\$230
Poultry processing	\$452	\$190
Malt manufacturing	\$138,663	\$120
Coffee and tea manufacturing	\$464	\$50
Fats and oils refining and blending	\$1,753	\$40
Seafood product preparation and packaging	\$1,605	\$40
Bread and bakery product, except frozen	\$9,297	\$20
Other animal food manufacturing	\$4,547	< \$10
Mixes and dough made from purchased flour	\$258	< \$10
Totals	\$679,163	\$24,780

Source: IMPLAN using 2004 Clark County data.

Table 16 – Local Agricultural Contributions to Food Manufacturing Sectors, Clark County, 1994 (1,000s)

Food Manufacturing Sector	Sector Output (Sales)	Local Agricultural Inputs Supply
Malt	\$61,609	\$1,810
Canned Fruits and Vegetables	\$21,317	\$1,410
Meat Packing Plants	\$2,828	\$1,100
Potato Chips & Similar Snacks	\$170,059	\$1,100
Fluid Milk	\$24,518	\$370
Frozen Fruits, Juices and Vegetables	\$915	\$80
Wines, Brandy, and Brandy Spirits	\$960	\$80
Sausages and Other Prepared Meats	\$863	\$20
Ice Cream and Frozen Desserts	\$8,032	\$20
Other Prepared Feeds	\$2,192	\$20
Blended and Prepared Flour	\$856	< \$10
Bread, Cake, and Related Products	\$541	< \$10
Cookies and Crackers	\$7,541	< \$10
Confectionery Products	\$380	< \$10
Chocolate and Cocoa Products	\$1,977	< \$10
Animal and Marine Fats and Oils	\$693	< \$10
Malt Beverages	\$2,505	< \$10
Other Food Preparations	\$376	< \$10
Totals	\$308,162	\$6,010

Source: IMPLAN using 1994 Clark County data.

The largest purchaser of local farm production in 2004 was the fluid milk industry, which purchased about \$15 million worth of raw milk from the dairy sector. This includes the value of raw milk produced at integrated dairies that produce raw milk and bottle it themselves. The animal slaughtering sector was also a large purchaser of local farm production, utilizing \$3.9 million worth of local livestock. Custom slaughtering of privately raised livestock is included in this sector in 2004 and listed in Table 14, but is not included in meat packing plants sector in Table 15. Therefore, the value of farm grown livestock slaughtered in the county is underrepresented in the 1994 table. Another food manufacturing sector worth mentioning is canned fruits and vegetables which purchased \$1.4 million worth of local farm goods in 1994, but only \$340,000 in 2004. Discussions with local farmers reveal that this reduction from lost

Clark County fruit production that has been replaced with fruit procured from outside the county.

The dominating manufactured products in both 1994 and 2004 are snack chips and malt. These two sectors are responsible for over 75 percent of Clark County's manufactured food sales. The two main crop inputs needed for these products are processing potatoes and malting barley. Neither of these crops is commercially grown in Clark County. Therefore both of these processing sectors rely heavily on bringing in these raw product ingredients from outside the county. The effect of using imported crops means that, although the snack chip and malt manufacturing businesses are major employers and contributors to the local economy, they do little to directly support the county's agricultural industry.

Conclusions

In the first half of the twentieth Century, Clark County had a vibrant farm economy. For at least the last 30 years agriculture in Clark County has been in a long downward trend in production and farm profits. The mix of crops and livestock produced in Clark County is still diverse, but the farms are small and there are ever declining numbers of agricultural producers.

Many factors contribute to the decline in the county's agriculture. The most basic factor is that agricultural producers in other areas grow, process and market crops and products at lower prices that meet consumer demand.

One of the key obstacles in Clark County is the limited access to high quality agricultural land at an affordable cost. This impacts both existing farmers and potential new farmers. Few new producers are replacing those who have left the industry or are preparing to leave. Newer farmers have often adopted strategies of downsizing, renting land, or operating part-time. Additionally, apart from Extension and USDA programs, Clark County has very little in the way of support for farmers to combat the many forces that continually drive farmers to quit or leave the area. All of these conditions do not bode well for a secure future in farming.

Farmers can only sustain themselves when they are profitable. To be profitable in Clark



County, the costs of inputs used in the operation must be competitive, or farmers need higher prices and/or greater yields than their competitors. Demand by metropolitan area residents is growing for locally produced food and agricultural crops but this demand is not sufficiently strong to reverse the trends and allow farmers to expand with profitable operations in the county. The statistics show that Clark County farm income has continued to decline (Figures 1, 2 and 6).

There is little evidence that farmers are borrowing from either conventional or government lenders to establish new farms. Commercial credit is not practical given the immense cost of purchasing land and other assets needed to establish a farm. The logical conclusion is that new farms are commonly self-financed. This explains why so many are small scale operations on acreages of two to ten or twenty acres. These farmers often earn a small farm income that supplements their other sources of income.

Significant intervention by government is required if farms in Clark County are to be saved. Programs must be quickly put in place if public policy is to keep land and farmers in the future. One example of a program is the purchasing of development rights on selected lands considered prime for farming. Purchasing development rights to land is not sufficient to sustain farming. As crucial as it is to keep land available, the most vital need is for much higher

demand by local residents for local farm and agricultural products. Government can exert little influence over consumer purchasing patterns.

Clark County can offer and implement a set of programs to support the income-producing needs of farmers. Public support for agri-tourism, regulatory relief and technical assistance, new market support and other programs may all be needed if a significant number of farmers are going to enter this business. Without a series of focused efforts and programs specifically designed to support farmers to a much greater degree, the downward trend of farming in Clark County will almost certainly continue.

In this context, loss of farms that are located within the expansion areas will only slightly contribute to the downward decline. However being inside the UGA does not necessarily mean the farms go out of business, since some farms (mostly nurseries) are within city boundaries. However, in many cases these urban-centered farms can be expected to cease operation. Their special challenge is that they are closest to development and least able to handle their higher costs, uncertain land tenure and land use incompatibilities. Most are small and are struggling to be competitive and remain in business. Existing agricultural zoning and programs of support are not sufficient to help these agricultural operations be competitive in order to remain in business for the longer term. Some are located on high quality soils but this is not uniformly true.

About 72 percent of Clark County's identified commercial agricultural land remains outside of the boundaries of the Preferred Alternative area. Out of the 145 identified farms in Clark County, there are 112 farms in production which are located outside of the boundaries of the Preferred Alternative. There are 11 identified farms located within the expansion areas of the Preferred Alternative and 22 farms within the current city limits or the 2004 adopted UGA boundary.