

## AGRICULTURAL RESOURCES

There are many different aspects of agriculture which could be evaluated as part of a discussion of this resource, farming practices, economic impacts, rural interaction, and aesthetics just to name a few. In evaluating those which can be influenced by local decision-makers, however, it becomes immediately apparent that state and national policies have more impact on the future of agriculture than local land-use decisions. In spite of state and national influences, agriculture is still very important at the local level, whether as a “way of life,” due to job impact, as a tax base or because of the aesthetic values of the rural scene. This section will look at the status of agriculture in St. Croix County in general and the Town of Emerald and Village of Deer Park specifically and discuss the ways in which local policy decisions can have an impact on this industry and resource.

There is very little economically productive farmland within the Village of Deer Park. The village hopes to contribute to the protection of productive farmland in the adjacent town by developing the vacant and agricultural land within the village as residential, commercial or recreational land. The goals, objectives and policies in this section will reflect this intent.

It must also be noted, that in an evaluation of the agricultural data available there is very little reported at the town level. The Town of Emerald has agriculture activities spread throughout the town. Much of the town has high quality agricultural lands and therefore it can be deduced that county-wide agricultural data is representative of the best agricultural lands in Emerald. As a result, county-wide data is used when town level data is not available.

**RECENT TRENDS IN ST. CROIX COUNTY AGRICULTURE**

Lee Milligan, former St. Croix County UW-Extension Agriculture Agent, analyzed recent trends in St. Croix County agriculture as of August 2007.

The agricultural sector is a vital contributor to the economy in St. Croix County. It accounts for \$524.4 million in economic activity. It provides jobs for 4,714 county citizens or about 13.6 percent of the workforce. It contributes about \$142.3 million to the county’s income or about 10 percent of St. Croix County’s total income.

The agricultural sector in St. Croix County is an industry that is undergoing continual change. The question one can pose is “How is production agriculture changing in St. Croix County?” The changes can be summarized in the following list:

Changes in St. Croix County Agriculture

|                             |            |
|-----------------------------|------------|
| Value of Agricultural Sales | Stable     |
| Farm Numbers                | Stable     |
| Avg. Size of Farm           | Decreasing |
| Livestock Numbers           | Increasing |
| Cash Grain Acreage          | Increasing |
| Dairy Cow Numbers           | Decreasing |
| Avg. Milk Production/Cow    | Increasing |
| Avg. Dairy Herd Size        | Increasing |

Annual agricultural sales in St. Croix County typically are about \$95 to \$100 million in gross receipts from the marketing of commodities such as meat, milk, crops, vegetables and timber. However, in 2007 this value increased due to significantly increased milk, livestock and crop prices. This value does not include the economic impact of the farm supply and agricultural product processing industries. St. Croix County’s marketing sales have been consistent in recent years as they have in Polk and Pierce counties. Barron and Dunn Counties have seen a decline in agricultural sales in recent years. The chart below shows a comparison of agricultural sales in St. Croix County and surrounding counties based on the Census of Agriculture data.

**Value of Agricultural Sales – 1997, 2002 & 2007  
St. Croix County & Surrounding Counties**

| YEAR | COUNTIES      |               |               |               |                      |
|------|---------------|---------------|---------------|---------------|----------------------|
|      | BARRON        | DUNN          | PIERCE        | POLK          | ST. CROIX            |
| 1997 | \$170,632,000 | \$117,939,000 | \$77,780,000  | \$70,546,000  | <b>\$96,151,000</b>  |
| 2002 | \$149,918,000 | \$103,519,000 | \$72,329,000  | \$72,492,000  | <b>\$97,863,000</b>  |
| 2007 | \$206,438,000 | \$173,602,000 | \$115,194,000 | \$103,660,000 | <b>\$142,521,000</b> |

Source: Census of Agriculture

The chart below shows the total annual agricultural sales for St. Croix County and surrounding counties. In 2002, approximately 70 percent of the total sales in St. Croix County were from the dairy and livestock industry and 30 percent from crops and greenhouse/nursery industry. Dairy sales represented over 50 percent (\$50 million) of the total agricultural sales and about 73 percent of the total livestock sales. Grain sales represented about 20 percent of the total agricultural sales and 68 percent of the total crop/greenhouse/nursery sector. By 2007, those numbers had shifted towards the dairy and livestock industry. Approximately 77 percent of the total sales in the County were from the dairy and livestock industry and 23 percent were from the crops and greenhouse/nursery industry.

**Annual Agricultural Sales – 2002 & 2007  
St. Croix County & Surrounding Counties**

| PRODUCT  | COUNTIES      |               |              |              |                      |
|--|---------------|---------------|--------------|--------------|----------------------|
|  | BARRON        | DUNN          | PIERCE       | POLK         | ST. CROIX            |
| 2002 Total Value Crops, Greenhouse & Nursery         | \$31,172,000  | \$34,048,000  | \$23,911,000 | \$19,434,000 | <b>\$28,618,000</b>  |
| 2007   | \$40,663,000  | \$51,438,000  | \$38,535,000 | \$20,472,000 | <b>\$32,269,000</b>  |
| 2002 Total Value Livestock, Poultry & Their Products | \$118,746,000 | \$69,532,000  | \$48,418,000 | \$53,058,000 | <b>\$69,245,000</b>  |
| 2007   | \$165,775,000 | \$122,165,000 | \$76,659,000 | \$83,188,000 | <b>\$110,252,000</b> |

Source: Census of Agriculture

The chart below indicates that the declining trend in farm numbers in St. Croix County and many of the surrounding counties reversed in the 1990's. In 1990 there were 1,690 farms and by 2007 1,808. Farm numbers have stabilized between 1997 and 2007.

**Farm Numbers – 1969 to 2007  
St. Croix County & Surrounding Counties**

| YEAR | COUNTIES |       |        |       |              | WISCONSIN |
|------|----------|-------|--------|-------|--------------|-----------|
|      | BARRON   | DUNN  | PIERCE | POLK  | ST. CROIX    |           |
| 1969 | 2,306    | 2,026 | 1,652  | 2,101 | <b>1,845</b> | N/A       |
| 1978 | 1,876    | 1,759 | 1,498  | 1,823 | <b>1,734</b> | N/A       |
| 1987 | 1,659    | 1,515 | 1,240  | 1,467 | <b>1,576</b> | N/A       |
| 1997 | 1,681    | 1,701 | 1,523  | 1,642 | <b>1,895</b> | 79,541    |
| 2002 | 1,647    | 1,683 | 1,510  | 1,659 | <b>1,864</b> | 77,131    |
| 2007 | 1,484    | 1,690 | 1,531  | 1,582 | <b>1,808</b> | 78,463    |

Source: Census of Agriculture 1969 - 2007

The reason for the significant increase in farm numbers in the 1990's was the rapid increase in the number of small farms and an improvement in how the National Agricultural Statistics Service collects the data. A farm is defined by the National Agricultural Statistics Service as "any establishment from which \$1,000 or more of agricultural products were sold or would normally be sold during the year." This includes livestock and livestock products, fruit, vegetables, crops, greenhouse and nursery products, Christmas trees, and government program payments. In St. Croix County there are a growing number of people purchasing smaller acreages that qualify as a farm. At the same time the number of large farms is growing and the number of midsize farms is declining.

**Size and Number of Farms – 1997 & 2007  
St. Croix County & Surrounding Counties**

| ACRES     | COUNTIES |      |      |      |        |      |      |      |            |             |
|-----------|----------|------|------|------|--------|------|------|------|------------|-------------|
|           | BARRON   |      | DUNN |      | PIERCE |      | POLK |      | ST. CROIX  |             |
|           | 1997     | 2007 | 1997 | 2007 | 1997   | 2007 | 1997 | 2007 | 1997       | 2007        |
| 1-99      | 603      | 682  | 611  | 806  | 673    | 863  | 695  | 860  | <b>922</b> | <b>1073</b> |
| 100-179   | 321      | 250  | 366  | 322  | 309    | 260  | 378  | 299  | <b>370</b> | <b>311</b>  |
| 180-259   | 289      | 178  | 205  | 188  | 211    | 140  | 197  | 144  | <b>231</b> | <b>149</b>  |
| 260-499   | 358      | 234  | 358  | 269  | 227    | 155  | 262  | 166  | <b>257</b> | <b>163</b>  |
| 500-999   | 87       | 105  | 117  | 110  | 73     | 73   | 91   | 67   | <b>84</b>  | <b>73</b>   |
| 1000-1999 | 18       | 26   | 34   | 36   | 25     | 31   | 19   | 38   | <b>23</b>  | <b>26</b>   |
| 2000 +    | 5        | 9    | 10   | 19   | 5      | 9    | 0    | 8    | <b>8</b>   | <b>13</b>   |

Source: Census of Agriculture 2007.

The chart above illustrates the shift to smaller and larger farms between 1997 and 2007. The number of farms between the acreage of 1 to 99 acres increased by 151 and over 1,000 acres

increased by 6 between 1997 and 2007. The number of farms between 100 to 999 acres declined by 246 during that time. Surrounding counties are also showing this general pattern.

The average size of a farm in St. Croix County is declining. In 1987, the average size reached a high of 212 acres and declined to 166 acres in 2002 and 2007. This is a trend seen in the surrounding counties of Barron, Polk, Dunn and Pierce and across the state. See the chart below.

***Average Size of Farms (Acres) – 1969 to 2007  
St. Croix County & Surrounding Counties***

| YEAR | COUNTIES |      |        |      |            | WISCONSIN |
|------|----------|------|--------|------|------------|-----------|
|      | BARRON   | DUNN | PIERCE | POLK | ST. CROIX  |           |
| 1969 | 178      | 207  | 187    | 180  | <b>192</b> | 183       |
| 1978 | 210      | 239  | 208    | 200  | <b>211</b> | 201       |
| 1987 | 226      | 264  | 217    | 215  | <b>212</b> | 221       |
| 1997 | 214      | 239  | 190    | 184  | <b>181</b> | 204       |
| 2002 | 214      | 237  | 177    | 177  | <b>166</b> | 204       |
| 2007 | 218      | 226  | 177    | 183  | <b>166</b> | 194       |

Source: Census of Agriculture 1969 - 2007.

Crop acres in St. Croix County have declined approximately 14,000 acres since 1990; however, crop acres are 1,000 acres greater than 1970. The chart below illustrates the number of crop acres in St. Croix County and surrounding counties. Crop acres are defined as the sum of the acres of corn, soybeans, barley, oats and all hay. It excludes the 2007 Conservation Reserve Program enrollment of 30,485 acres, other small grains (1,600 acres), vegetable crops (4,300+ acres) and nursery crops grown in 2005.

***Harvested Crop Acres – 1971 to 2006  
St. Croix County & Surrounding Counties***

| COUNTY           | 1971           | 2000           | 2002           | 2006           |
|------------------|----------------|----------------|----------------|----------------|
| Barron           | 166,750        | 177,500        | 187,700        | 192,500        |
| Dunn             | 163,800        | 193,500        | 196,900        | 210,500        |
| Pierce           | 149,200        | 159,600        | 164,300        | 154,000        |
| Polk             | 132,250        | 158,700        | 149,500        | 148,600        |
| <b>St. Croix</b> | <b>181,550</b> | <b>196,600</b> | <b>187,900</b> | <b>182,500</b> |

Source: National Agricultural Statistics Service: Agricultural Statistics Data Base.

The number of acres of specific crops has changed dramatically over the years. The most dramatic change has been the huge reduction in the acres of oats grown and a corresponding increase in soybean acreage. In the early 1970's over 40,000 acres of oats were grown and only 3,000 acres of soybeans. In 2006, 41,300 acres of soybeans were grown and only 8,500 acres of oats. The amount of hay grown has declined reflecting a decrease in livestock numbers and a shift to row crops. Please see the chart below.

***Crop Acres – 1970 to 2006  
St. Croix County***

| CROP     | 1970   | 1990   | 2002   | 2006   |
|----------|--------|--------|--------|--------|
| Corn     | 51,800 | 84,800 | 86,000 | 77,500 |
| Oats     | 47,000 | 29,100 | 12,600 | 8,500  |
| Barley   | 850    | 1,700  | 1,000  | NA     |
| Soybeans | 2,600  | 16,300 | 31,000 | 41,300 |
| All Hay  | 79,300 | 64,700 | 57,300 | 55,200 |

Source: National Agricultural Statistics Service: Agricultural Statistics Data Base.

Yields of corn and soybeans have almost doubled since 1970. This is a dramatic change in 35 years. The chart below shows the changes in yields between 1970 and 2006. Yields declined significantly from the trend due to a drought in 2006. St. Croix County has large areas of very

productive, well drained, silt loam soils. The yield increases are due to improvements in crop genetics and management practices. There has also been favorable weather in years prior to 2006 and 2007 that has been an important factor in the increased yields.

**Average Yield (Bushels/Acre) – 1970 to 2006  
St. Croix County & Surrounding Counties**

| COUNTY           | CORN      |            |            |            |           | SOYBEANS  |           |           |           |           |
|------------------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  | 1970      | 1990       | 2002       | 2005       | 2006      | 1970      | 1990      | 2002      | 2005      | 2006      |
| Barron           | 85        | 103        | 142        | 123        | 89        | 17        | 35        | 48        | 37        | 36        |
| Dunn             | 85        | 120        | 141        | 143        | 100       | 20        | 37        | 46        | 35        | 35        |
| Pierce           | 89        | 117        | 160        | 166        | 142       | 20        | 38        | 51        | 45        | 43        |
| Polk             | 87        | 106        | 145        | 140        | 84        | 19        | 34        | 45        | 40        | 36        |
| <b>St. Croix</b> | <b>79</b> | <b>115</b> | <b>150</b> | <b>158</b> | <b>90</b> | <b>20</b> | <b>37</b> | <b>49</b> | <b>45</b> | <b>34</b> |

Source: National Agricultural Statistics Service: Agricultural Statistics Data Base.

The dairy industry is the largest single enterprise in St. Croix County’s agricultural sector. It will typically account for 55 to 65 percent of the total cash farm receipts in the county. There are about 21,900 dairy cows on 198 dairy farms in St. Croix County as of 2006. Since the early 1990’s cow numbers have been slowly declining from 26,500 in 1995 to 21,900 cows in 2006. See the chart below.

**Dairy Cow Numbers – 1975 to 2006  
St. Croix County & Surrounding Counties**

| YEAR | COUNTIES |        |        |        |               | WISCONSIN    |
|------|----------|--------|--------|--------|---------------|--------------|
|      | BARRON   | DUNN   | PIERCE | POLK   | ST. CROIX     |              |
| 1975 | 48,800   | 41,000 | 26,300 | 35,200 | <b>35,400</b> | 1.81 million |
| 1985 | 49,700   | 43,800 | 28,500 | 34,700 | <b>36,900</b> | 1.88 million |
| 1995 | 37,500   | 32,000 | 21,500 | 24,000 | <b>26,500</b> | 1.49 million |
| 2000 | 29,000   | 21,500 | 18,400 | 18,100 | <b>24,200</b> | 1.29 million |
| 2003 | 27,000   | 21,000 | 18,000 | 17,500 | <b>23,000</b> | 1.26 million |
| 2006 | 25,000   | 22,400 | 17,200 | 16,000 | <b>21,900</b> | 1.24 million |

Source: National Agricultural Statistics Service: Agricultural Statistics Data Base.

The average milk production per cow in St. Croix County is frequently in the top ten counties in the state according to the National Agricultural Statistics Service. The average milk production is consistently above that of the neighboring counties and the state average. See the chart below. This is a reflection of the dairy producers management abilities with cows and producing, harvesting and/or purchasing quality feeds. There is also a strong support of agricultural equipment and input suppliers, livestock health care, dairy nutrition and education professionals.

**Average Production Per Cow (Lbs) – 1975 to 2006  
St. Croix County & Surrounding Counties**

| YEAR | COUNTIES |        |        |        |               | WISCONSIN |
|------|----------|--------|--------|--------|---------------|-----------|
|      | BARRON   | DUNN   | PIERCE | POLK   | ST. CROIX     |           |
| 1975 | 10,200   | 10,200 | 10,600 | 10,300 | <b>10,600</b> | 10,430    |
| 1985 | 13,000   | 13,200 | 13,000 | 12,800 | <b>13,700</b> | 13,166    |
| 1995 | 14,900   | 15,800 | 15,300 | 15,300 | <b>16,200</b> | 15,397    |
| 2000 | 16,300   | 16,500 | 17,200 | 16,700 | <b>18,400</b> | 17,182    |
| 2003 | 16,300   | 16,900 | 17,300 | 17,400 | <b>18,500</b> | 17,728    |
| 2006 | 16,700   | 18,100 | 17,600 | 17,600 | <b>19,300</b> | 18,824    |

Source: National Agricultural Statistics Service: Agricultural Statistics Data Base.

The number of cattle and calves in St. Croix County has declined from 92,000 in 1972 to 63,000 in 2007. This number includes beef and dairy cattle. Please see the chart below. This is a consistent trend reflected in surrounding counties and across the state.

***Cattle & Calves – 1975 to 2007***  
***St. Croix County & Surrounding Counties***

| COUNTY           | 1975           | 1985          | 1995          | 2003          | 2007          |
|------------------|----------------|---------------|---------------|---------------|---------------|
| Barron           | 111,000        | 102,000       | 80,000        | 69,000        | 68,500        |
| Dunn             | 105,400        | 105,000       | 77,000        | 62,000        | 64,500        |
| Pierce           | 88,000         | 85,000        | 63,000        | 53,000        | 53,000        |
| Polk             | 100,800        | 80,100        | 57,000        | 48,500        | 48,500        |
| <b>St. Croix</b> | <b>104,500</b> | <b>95,000</b> | <b>72,000</b> | <b>60,000</b> | <b>63,000</b> |

Source: National Agricultural Statistics Service: Agricultural Statistics Data Base.

Swine numbers have also declined. There are about four major producers in the county and several farms with small numbers of swine.

Technology use in agriculture is also changing. It is becoming more diverse. For example, the production of milk may be done via grazing, confinement housing and stored feeds, or a combination of both methods. A producer may choose to be certified to produce the crops, milk, or meat organically. Crop producers have the option of selecting genetically modified seed that has a level of resistance to specific herbicides or insects. Equipment is becoming more precise. Yields are being monitored as the combine crosses a field using yield monitors and global positioning equipment.

In summary, the St. Croix County agricultural sector provides over \$524 million of economic activity to the St. Croix County economy. There are large areas of very productive, well drained silt loam soils in St. Croix County that are the basis to the dairy and livestock and cash crop industries of St. Croix County. The changes occurring in the agricultural sector are similar to what is occurring in surrounding counties. These include slowly declining dairy and livestock numbers and crop acres. The number of farms under 100 acres and farms over 1,000 acres are increasing. These changes are similar to what is occurring across the state and nationally. Technology is becoming more diverse. Producers are using various forms of technology to meet their personal and business goals.

**AGRICULTURAL INVENTORY**

**Acres in Farmland – 1978 to 2007  
St. Croix County**

| ACRES                 | 1978    | 1982    | 1987    | 1992    | 1997    | 2002    | 2007    |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|
| Total Farmland        | 365,832 | 352,472 | 334,028 | 308,460 | 312,076 | 310,178 | 308,275 |
| % of County Land Area | 78.4%   | 75.5%   | 73.7%   | 66.1%   | 66.8%   | 66.4%   | 66.0%   |
| Total Cropland        | 281,165 | 267,724 | 262,347 | 244,807 | 237,069 | 232,792 | 222,427 |

Source: U.S. Census of Agriculture, 1978-2007

- From 1978 to 2007 there has been a steady decline in total acres of farmland in St. Croix County. During that time frame approximately 12 percent or 57,500 acres of land have been shifted to other uses. Farmland includes crops, pasture, woodland, land in the Conservation Reserve (CRP) and Wetland Reserve programs (WRP) and rented land.
- Cropland has seen a similar decrease. From 1978 to 2007, 13 percent or 58,700 acres of cropland have been shifted to other uses.

**Acres of Farmland on Tax Rolls Including Improvements – 1997 to 2009  
Deer Park – Emerald & Neighboring Communities**

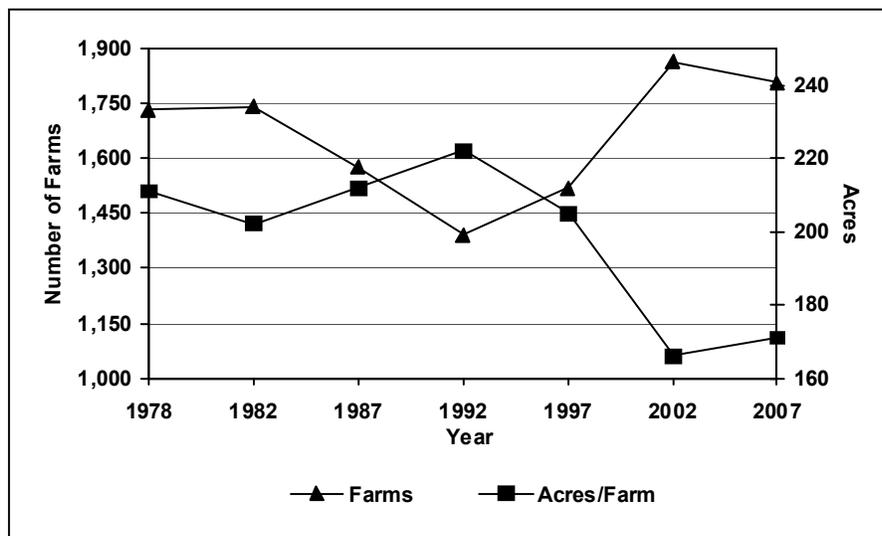
| COMMUNITY               | TOTAL ACRES    |                | FARMLAND ACRES ON TAX ROLLS |                | % CHANGE      |              | % OF TOTAL ACRES TAXED AS FARMLAND |              |
|-------------------------|----------------|----------------|-----------------------------|----------------|---------------|--------------|------------------------------------|--------------|
|                         | 2009           | 1997           | 2002                        | 2009           | 97-02         | 02-09        | 2002                               | 2009         |
| <b>Emerald</b>          | <b>22,282</b>  | <b>18,769</b>  | <b>15,244</b>               | <b>15,830</b>  | <b>-18.8%</b> | <b>3.8%</b>  | <b>68.4%</b>                       | <b>71.0%</b> |
| Baldwin                 | 20,446         | 18,423         | 14,440                      | 14,369         | -21.6%        | -0.5%        | 70.6%                              | 70.3%        |
| Cylon                   | 22,258         | 14,285         | 12,613                      | 15,077         | -11.7%        | 19.5%        | 56.7%                              | 67.7%        |
| Erin Prairie            | 22,440         | 19,092         | 16,718                      | 16,782         | -12.4%        | 0.4%         | 74.5%                              | 74.8%        |
| Glenwood                | 21,852         | 16,233         | 14,227                      | 14,031         | -12.4%        | -1.4%        | 65.1%                              | 64.2%        |
| <b>V. Deer Park</b>     | <b>534</b>     | <b>314</b>     | <b>181</b>                  | <b>221</b>     | <b>-42.4%</b> | <b>22.1%</b> | <b>33.9%</b>                       | <b>41.4%</b> |
| V. Star Prairie         | 1,234          | 777            | 464                         | 496            | -40.3%        | 6.9%         | 37.6%                              | 40.2%        |
| V. Wilson               | 1006           | 914            | 242                         | 290            | -73.5%        | 19.8%        | 24.1%                              | 28.8%        |
| <b>St. Croix County</b> | <b>408,554</b> | <b>319,670</b> | <b>260,646</b>              | <b>257,931</b> | <b>-18.5%</b> | <b>-1.0%</b> | <b>59.5%</b>                       | <b>63.1%</b> |

Source: Wisconsin Department of Revenue and St. Croix County Planning and Zoning.

- From 1997 to 2002 the acres of farmland on the tax rolls decreased by about 19 percent but from 2002 to 2009 the acreage increased by about 5 percent in the Town of Emerald.
- The acres of farmland on the tax rolls also decreased in the surrounding towns with the greatest decrease in Baldwin and somewhat less in Cylon, Erin Prairie and Glenwood.
- About half of this decrease has been due to the conversion of farmland to other uses; the other half has been caused by reclassification of land from farmland to swamp and waste.
- The increase in farmland from 2002 to 2009 may be due to increased production on marginal acres and the increase in land classified as farmland because of the tax advantages of use-value assessment.
- The Village of Deer Park experienced a dramatic decrease in the acres of farmland on the tax roll from 1997 to 2002, dropping by over 40 percent but then from 2002 to 2009 the acreage increased by over 20 percent.
- Similar trends occurred in the villages of Star Prairie and Wilson.

- These changes are probably also due to the changes in how agricultural land is assessed and the tax incentives of use value assessment.
- Farmland continues to be the predominant land use in the eastern towns of St. Croix County, including Stanton, Cylon, Forest, Erin Prairie, Emerald, Glenwood, Hammond, Baldwin, Springfield, Pleasant Valley, Rush River, Eau Galle and Cady.
- Farmland is steadily being replaced by residential housing as the predominant land use in the western towns of St. Croix County, including Richmond, Star Prairie and Somerset.

***Number and Size of Farms -- 1978 to 2007  
St. Croix County***



Source: U.S. Census of Agriculture, 1978 – 2007

- The number of farms in St. Croix County was steadily declining and the average size of farms was steadily increasing until the mid 1990's.
- From 1992 to 1995 there was a slight reversal of these trends. Then from 1997 to 2002 there was a sharp shift to smaller acreages and more farms. Several things caused these trends reversals.
- A general increase in affluence in the metropolitan area caused an influx of people who purchased small acreage farmettes in St. Croix County.
- Wisconsin adopted use-value assessment; this greatly decreased the holding cost of land and encouraged people to purchase additional acres when they could be identified as a farm.
- There has also been an increase in the market for horticulture products, organic vegetables and other non-traditional livestock that are produced on smaller acreage farms.
- From 2002 to 2007 the sharp shift of a greater number of smaller farms began to level off.

**Farms by Type -- 1978 to 2007**  
**St. Croix County**

| FARM TYPE                            | 1978         | 1982         | 1987         | 1992         | 1997         | 2002         | 2007        |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Livestock                            | 454          | 498          | 422          | 397          | 392          | 398          | 401         |
| Dairy                                | 734          | 762          | 630          | 511          | 338          | 228          | 192         |
| Other Animal & Poultry               | 84           | 86           | 88           | 103          | 101          | 216          | 211         |
| Cash Grains                          | 264          | 231          | 226          | 182          | 489          | 280          | 232         |
| Field Crops (other than cash grains) | 96           | 83           | 125          | 115          | 147          | 664          | 689         |
| Other Crop                           | 102          | 81           | 85           | 83           | 53           | 78           | 83          |
| <b>TOTAL</b>                         | <b>1,734</b> | <b>1,741</b> | <b>1,576</b> | <b>1,391</b> | <b>1,520</b> | <b>1,864</b> | <b>1808</b> |

Source: U.S. Census of Agriculture, 1978 - 2007

**Farms by Size -- 1978 to 2007**  
**St. Croix County**

| FARM SIZE          | 1978         | 1982         | 1987         | 1992         | 1997         | 2002         | 2007        |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| 1-9 Acres          | 54           | 88           | 64           | 66           | 47           | 100          | 62          |
| 10-49 Acres        | 225          | 277          | 247          | 218          | 316          | 566          | 583         |
| 50 to 179 Acres    | 631          | 615          | 565          | 480          | 585          | 731          | 739         |
| 180 to 499 Acres   | 701          | 641          | 571          | 496          | 460          | 348          | 312         |
| 500 to 999 Acres   | 106          | 99           | 107          | 109          | 82           | 82           | 73          |
| 1000 or More Acres | 17           | 21           | 22           | 22           | 30           | 37           | 39          |
| <b>Total</b>       | <b>1,734</b> | <b>1,741</b> | <b>1,576</b> | <b>1,391</b> | <b>1,520</b> | <b>1,864</b> | <b>1808</b> |

Source: U.S. Census of Agriculture, 1978 - 2007

**Farms by Value of Sales -- 1978 to 2007**  
**St. Croix County**

| SALES                  | 1978         | 1982         | 1987         | 1992         | 1997         | 2002         | 2007        |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| \$0 to \$4,999         | 427          | 459          | 392          | 374          | 624          | 1,088        | 1041        |
| \$5000 to \$9,999      | 208          | 178          | 168          | 149          | 141          | 138          | 159         |
| \$10,000 to \$24,999   | 228          | 172          | 220          | 192          | 199          | 200          | 169         |
| \$25,000 to \$49,999   | 265          | 194          | 197          | 144          | 132          | 105          | 97          |
| \$50,000 to \$99,999   | 468          | 472          | 299          | 221          | 164          | 116          | 99          |
| \$100,000 to \$249,999 | 122          | 226          | 263          | 246          | 185          | 137          | 124         |
| \$250,000 to \$499,999 | 13           | 39           | 29           | 51           | 55           | 53           | 71          |
| \$500,000 or more      | 3            | 1            | 8            | 14           | 20           | 27           | 48          |
| <b>Total</b>           | <b>1,734</b> | <b>1,741</b> | <b>1,576</b> | <b>1,391</b> | <b>1,520</b> | <b>1,864</b> | <b>1808</b> |

Source: U.S. Census of Agriculture, 1978 - 2007

- From 1978 to 1997, livestock, dairy and poultry farms were generally decreasing in farm numbers while crop farming was increasing in farm numbers.
- However, between 1997 and 2002 all types of farms have increased in number along with the general increase in farm numbers.
- From 2002 to 2007 dairy, poultry and cash grain farms have decreased while slight increases were experienced in livestock and crop farms.
- There has been a steady increase in the number of small farms, less than 50 acres, and large farms, over 1000 acres, while mid-size farms and the more traditional sizes, have been steadily declining over the past three decades.
- Farms less than 50 acres account for 36 percent of farm numbers.

- Also over the past two decades, there has been a steady increase in the number of farms in the lower sales brackets and in the upper sales brackets while there has been a steady decrease in the number of farms in the middle sales brackets.
- Farms with sales over \$500,000 nearly doubled from 2002 to 2007.
- These trends correspond to the increase in smaller acreage farms and possibly relate to the increase in farm operators who are not principal operators.

***Farm Operator Characteristics -- 1978 to 2007***  
***St. Croix County***

|                               | 1978  | 1982  | 1987  | 1992  | 1997  | 2002  | 2007 |
|-------------------------------|-------|-------|-------|-------|-------|-------|------|
| Total Farms                   | 1,734 | 1,741 | 1,576 | 1,391 | 1,520 | 1,864 | 1808 |
| Ownership                     |       |       |       |       |       |       |      |
| Individual/Family Farms       | 1,537 | 1,505 | 1,346 | 1,193 | 1,341 | 1,672 | 1580 |
| Partnerships                  | 167   | 178   | 175   | 127   | 99    | 109   | 121  |
| Corporation-Family            | 23    | 50    | 51    | 59    | 54    | 64    | 75   |
| Corporation-Other             | 1     | 1     | 2     | 5     | 7     | 3     | 11   |
| Other (Coop, trust, etc.)     | 6     | 7     | 2     | 7     | 19    | 16    | 21   |
| Principal Occupation Farming  | 1,107 | 1,076 | 974   | 819   | 733   | 941   | 747  |
| Principal Occupation Other    | 627   | 665   | 602   | 572   | 787   | 923   | 1061 |
| Average Years on Present Farm | 16    | 16    | 19    | 21    | 22    | 21    | 21   |
| Male Operators                | 1,689 | 1,682 | 1,528 | 1,317 | 1,386 | 1,643 | 1542 |
| Female Operators              | 45    | 59    | 48    | 74    | 134   | 221   | 266  |
| Average Age                   | 48    | 47    | 49    | 50    | 51    | 53    | 56   |

Source: Census of Ag, 1978 - 2007

- Farm ownership has not varied much in St. Croix County over the past 20 years. Family farms continue to predominate.
- The number of farmers whose principal occupation is farming remained fairly constant from 1978 to 2002.
- However, from 1997 to 2007 the number of farmers claiming a different principal occupation has increased steadily to nearly 60 percent of all farmers in 2007.
- This increase correlates to the increase in smaller acreage farms and the increase in the total number of farms in St. Croix County.
- The number of years on the present farm has been very consistent over the past 20 years, but the average age of the owner/operator has been steadily increasing.
- There has also been a significant increase in the number of female operators since 1992, a 260 percent increase since that time.

## AGRICULTURAL PRODUCTION

### *Farm Crop Production -- 1978 to 2007* *St. Croix County*

| HARVESTED CROPS                                       | 1978      | 1982      | 1987      | 1992      | 1997      | 2002      | 2007      |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Corn for Grain (bushels)                              | 7,015,000 | 5,019,000 | 7,269,000 | 5,875,900 | 9,844,000 | 8,593,600 | 5,353,544 |
| Corn for Silage (tons)                                | 204,000   | 283,000   | 162,400   | 211,100   | 206,500   | 240,900   | 222,851   |
| Wheat (bushels)                                       | 64,500    | 39,400    | 31,600    | 20,700    | 16,000    | 202,900   | 46,644    |
| Barley (bushels)                                      | 47,600    | 48,100    | 95,900    | 87,900    | 131,400   | 25,700    | 30,689    |
| Oats (bushels)  | 1,569,000 | 1,402,000 | 896,400   | 726,900   | 536,000   | 351,000   | 295,036   |
| Soybeans (bushels)                                    | 127,000   | 221,000   | 370,300   | 360,600   | 709,100   | 1,451,100 | 949,282   |
| Forage All - Hay, Haylage, Silage & Green Chop (tons) | NA        | 293,500   | 237,300   | 183,300   | 243,700   | 194,900   | 123,470   |

Source: National Agricultural Statistics Service, 1978-1997, U.S. Census of Agriculture, 1987, 1992, 1997, 2002 & 2007

- Crop production has shifted dramatically over the past 20 years.
- Corn grain and soybean production have increased while oats, barley and hay have all decreased. Corn silage has increased a little. The shift in crop types away from forage and feed to grain production is related to the decreasing number of farm animals.
- Wheat had a considerable increase from 1997 to 2002 with a return to previous numbers in 2007.
- From 2002 to 2007 crop production in St. Croix County experienced decreases in all areas except barley.

### *Farm Livestock Production -- 1978 to 2007* *St. Croix County*

| Livestock          | 1978    | 1982    | 1987    | 1992    | 1997    | 2002    | 2007    |
|--------------------|---------|---------|---------|---------|---------|---------|---------|
| Milk Cows          | 35,500  | 36,800  | 35,500  | 29,600  | 24,000  | 21,800  | 21,600  |
| Milk (1000 pounds) | 415,350 | 474,720 | 521,860 | 461,760 | 415,200 | 428,400 | 419,040 |
| Milk Per Cow       | 11,700  | 12,900  | 14,700  | 15,600  | 17,300  | 18,000  | 19,400  |
| Cattle & Calves    | 91,000  | 94,900  | 92,000  | 79,000  | 62,800  | 59,800  | 59,400  |
| Hogs and Pigs Sold | 31,863  | 35,593  | 35,900  | 22,400  | 11,100  | 13,700  | 14,700  |

Source: National Agricultural Statistics Service 1978 - 2007

- Despite a decreasing number of milk cows, production per cow has continued to climb so that in general milk production in St. Croix County has remained relatively constant over the past 30 years.
- Other livestock categories have decreased dramatically over the same time frame.
- These changes reflect the changes in technology and farm labor costs and conflicts with residential property owners and livestock production.

- There are five dairy farms in St. Croix County with permits for over 1,000 animal units. The farms are located in the towns of Emerald, Hammond, Pleasant Valley, Rush River and St. Joseph. Emerald Dairy, in the Town of Emerald, at present has 1,600 animal units, although it is permitted for up to 3,400.
- There is also a large turkey operation in the Town of Richmond with over 1,000 animal units.

***State and National Ranking by County -- 2007***  
***St. Croix County***

| CATEGORY   | QUANTITY             | STATE RANK      | NATIONAL RANK       |
|--|----------------------|-----------------|---------------------|
| Oats (acres)                                       | 4,369                | <b>10 of 70</b> | <b>62 of 1,957</b>  |
| Grain, oilseeds, dry beans and drypeas             | \$23,647,000         | 26 of 71        | 923 of 2,933        |
| Soybeans (acres)                                   | 36,019               | 12 of 66        | 641 of 2,039        |
| Nursery, greenhouse, floriculture & sod            | \$4,067,000          | 18 of 70        | 542 of 2,703        |
| Corn for grain (acres)                             | 66,522               | 17 of 68        | 475 of 2,634        |
| Corn for silage (acres)                            | 16,097               | 15 of 70        | <b>64 of 2,263</b>  |
| Vegetables, melons, potatoes, & sweet potatoes     | \$2,115,000          | 33 of 71        | 564 of 2,796        |
| Other crops & hay                                  | \$2,153,000          | 21 of 72        | 811 of 3,054        |
| Total Value Of Crops Incl. Nursery & Greenhouse    | \$32,269,000         | 33 of 72        | 1,157 of 3,072      |
| Turkeys Inventory                                  | Not Available        | <b>6 of 70</b>  | Not Available       |
| Aquaculture  | \$457,000            | <b>9 of 58</b>  | 351 of 1,498        |
| Horses & Ponies Inventory                          | 3,389                | <b>6 of 72</b>  | 202 of 3,066        |
| Horses, ponies, mules, burros & donkeys            | \$353,000            | <b>9 of 70</b>  | 687 of 3,024        |
| Poultry & eggs                                     | \$11,443,000         | <b>9 of 72</b>  | 533 of 3020         |
| Hogs & Pigs Inventory                              | 8,053                | 14 of 71        | 746 of 2,958        |
| Hogs & Pigs Sold                                   | \$1,794,000          | 15 of 71        | 783 of 2,922        |
| Milk & other dairy products                        | \$80,409,000         | 22 of 70        | <b>82 of 2,493</b>  |
| <b>Total Value Of Livestock And Their Products</b> | <b>\$110,252,000</b> | <b>25 of 72</b> | <b>337 of 3,069</b> |
| <b>Total Value Of All Ag Products Sold</b>         | <b>\$142,521,000</b> | <b>31 of 72</b> | <b>577 of 3,076</b> |

Source: US Census of Agriculture National Agricultural Statistics Service.

- The chart above shows St. Croix County's rank for the top commodities. Rankings in the top 10 counties for the state of Wisconsin and top 100 counties for the nation are marked in bold.
- Turkey, aquaculture and poultry production are among the highest in the state. Horses and pony inventory and value are also among the top.
- Nationally, St. Croix County ranks highest in oats and corn for silage relative to crop production.
- Despite a decline in the number of dairy farms, St. Croix ranks 82 of 2,493 counties nationwide in the value of milk and other dairy products sold.

**Commodity Values (in Millions) -- 1978 to 2007**  
**St. Croix County**

| CATEGORY                          | 1978          | 1982          | 1987          | 1992          | 1997          | 2002          | 2007           |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| All Livestock, Poultry & Products | \$55.6        | \$82.8        | \$75.2        | \$79.1        | \$65.8        | \$69.2        | \$110.3        |
| Dairy Products                    | \$37.6        | \$59.4        | \$53.5        | \$55.5        | \$49.7        | \$51.2        | \$80.4         |
| Cattle and Calves                 | \$10.4        | \$13.9        | \$14.0        | \$17.8        | \$11.4        | \$12.1        | \$15.4         |
| Poultry & Eggs                    | \$4.3         | \$5.4         | \$3.9         | \$3.1         | \$2.2         | \$3.9         | \$11.4         |
| Hogs & Pigs                       | \$2.8         | \$3.8         | \$3.4         | \$2.2         | \$1.3         | \$1.0         | \$1.8          |
| All Crops                         | \$11.4        | \$10.8        | \$14.0        | \$14.5        | \$25.8        | \$28.6        | \$32.3         |
| Corn for Grain                    | \$6.8         | \$6.8         | \$8.6         | \$8.6         | \$14.4        |               |                |
| Soybeans                          | NA            | \$1.1         | \$1.6         | \$1.9         | \$4.0         | \$19.5*       | \$23.6*        |
| Oats                              | NA            | \$0.5         | 0.4           | \$0.3         | \$0.3         |               |                |
| Hay, Silage                       | \$2.2         | \$1.2         | \$2.0         | \$2.0         | \$2.8         | \$2.1         | \$2.2          |
| Nursery & Greenhouse              | \$0.1         | N/A           | \$0.4         | \$0.6         | \$2.4         | \$3.3         | \$4.0          |
| Vegetables, Melons                | \$0.9         | \$0.7         | \$0.8         | \$0.9         | \$1.7         | \$3.5         | \$2.1          |
| <b>Total All Sales</b>            | <b>\$67.0</b> | <b>\$93.7</b> | <b>\$89.2</b> | <b>\$93.6</b> | <b>\$91.6</b> | <b>\$97.9</b> | <b>\$142.5</b> |

\*Categories combined for 2002 & 2007. Source: U.S. Census of Agriculture, 1978 - 2007

- Total commodity sales in St. Croix County has remained relatively constant for approximately 25 years, with a considerable increase in 2007 which can be attributed to an increase in milk and dairy prices.
- Commodity values reflect the decreasing importance of livestock farming in the County and the increasing importance of crop farming, especially corn and soybeans.
- Also gaining significant market share are nursery and greenhouse and vegetable and melon farming.
- Despite these shifts, dairy products have continued to account for over 50 percent of all commodity values for the past 20 years.

**Farm Income -- 1978 to 2007**  
**St. Croix County**

| AVERAGES  | 1978     | 1982     | 1987     | 1992     | 1997     | 2002     | 2007     |
|---|----------|----------|----------|----------|----------|----------|----------|
| Average Sales/Farm  | \$38,638 | \$53,799 | \$56,625 | \$67,295 | \$60,267 | \$52,502 | \$78,828 |
| Average Expense/Farm  | NA       | NA       | \$44,105 | \$56,786 | \$49,059 | \$45,695 | \$69,521 |
| Average Net Cash Return on Ag Sales/Farm                      | NA       | NA       | \$12,230 | \$12,877 | \$10,455 | \$10,795 | \$17,298 |
| Average Net Cash Return on Ag Sales/Farms > \$10,000 in Sales | NA       | NA       | \$27,976 | \$39,386 | \$40,772 | NA*      | NA*      |

Source: U.S. Census of Agriculture, 1978 - 2007 \* The information is not available.

- Overall, farm income has decreased for about 15 years with an increase in 2007, yet a considerable increase in farm expenses was also experienced during this time.
- Farm income for farms with ag sales greater than \$10,000 has increased over the past 15 years. This dichotomy may be due to the increase in farm numbers, many of which are probably emerging market or hobby farms.
- Net farm income saw an increase of about 60 percent from 2002 to 2007.

## AGRIBUSINESS ACTIVITY

### *Types of Agribusinesses - 1978 to 2007* *St. Croix County*

| Type                            | 1978       | 1982       | 1987         | 1992         | 1997         | 2002         | 2007         |
|---------------------------------|------------|------------|--------------|--------------|--------------|--------------|--------------|
| Agricultural Services           | 12         | 15         | 23           | 28           | 41           | 60           | 69           |
| Animal Product Support          | NA         | NA         | NA           | NA           | 6            | 6            | 6            |
| Veterinary                      | NA         | NA         | NA           | NA           | 12           | 16           | 18           |
| Landscape & Horticulture        | NA         | NA         | NA           | NA           | 23           | 38           | 45           |
| Manufacturing                   | 9          | 10         | 10           | 11           | 14           | 15           | 18           |
| Food & Kindred                  | 8          | 9          | 9            | 10           | 12           | 13           | 15           |
| Farm/Garden Machinery           | 1          | 1          | 1            | 1            | 2            | 2            | 3            |
| Wholesale Trade                 | 22         | 26         | 17           | 19           | 21           | 18           | 12           |
| Farm/Garden Machinery/Equipment | 11         | 15         | 6            | 6            | 9            | 9            | 2            |
| Farm Product Raw Material       | NA         | NA         | NA           | NA           | 3            | 4            | 3            |
| Farm Supplies                   | 11         | 11         | 11           | 13           | 9            | 5            | 7            |
| <b>Total Agribusinesses</b>     | <b>43</b>  | <b>51</b>  | <b>50</b>    | <b>58</b>    | <b>76</b>    | <b>93</b>    | <b>99</b>    |
| <b>Total Businesses</b>         | <b>736</b> | <b>793</b> | <b>1,041</b> | <b>1,247</b> | <b>1,584</b> | <b>1,895</b> | <b>2,187</b> |

Source: U.S. Census, County Business Patterns, 1978 - 2007

- From 1978 to 2007 agribusiness services have continued to increase in number.
- There have been related increases in the manufacturing industry.
- During this same time frame the wholesale services related to the agricultural industry have decreased in number.

It is important to recognize the nontraditional farming activities that are developing in St. Croix County. As the above statistics illustrate, small farms are growing in number and acreage. Many are horticulture-related businesses, which is a strong emerging market. There is also a growing consumer interest in buying locally grown, low or pesticide-free fruits and vegetables, free-range chickens, organic and grass-fed beef and lamb and minimally processed foods.

The reuse, maintenance and redevelopment of existing farm structures is also growing as more and more traditional farms are consolidated into larger or smaller operations. The existing farm buildings are an important economic and cultural resource in the rural areas and should continue to be utilized. Many of these structures are used for covered storage of seasonal equipment such as boats, recreational vehicles, snowmobiles, etc. These structures have also been converted to other uses such as a meeting hall, recreation facility or clubhouse.

## ***AGRICULTURAL LANDS***

Prime farmland is the land that is best suited to food, feed, forage, fiber, and oilseed crops. It may be cultivated land, pasture, woodland or other land, but it is not existing urban and built-up land, or water areas. The soil qualities, growing season, and moisture supply are factors needed for a well-managed soil to produce a sustained high-yield of crops in an economic manner. Prime farmland produces the highest yields with minimal inputs of energy and economic resources, and farming it results in the least damage to the environment. Historically, soils that fall into classes I, II, and III of the Soil Conservation Service's capability unit classification system are considered prime agricultural lands. The value of these lands for agriculture is associated with not only their soil class, but also with their size, present use and any regulatory framework for their protection.

### ***SUITABILITY FOR AGRICULTURE***

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), in establishing a uniform, national identification of productive farmlands, created a soil classification system that categorizes soils by their relative agricultural productivity. There are two categories of highly productive soils; national prime farmland and farmland of statewide significance. National prime farmland is well suited for the production of food, feed, forage, fiber and oilseed crops, and has the soil qualities, available moisture and growing season required to produce economically sustained high yields of crops when properly managed. Farmland of statewide significance are those lands, in addition to national prime farmland, which are of statewide importance for the production of food, feed, forage, fiber and oilseed crops. Soils that fall into classes I, II, and III of the Natural Resources Conservation Service's capability unit classification system are considered prime agricultural lands.

In 1981, NRCS developed a new system for evaluating agricultural lands, "Land Evaluation and Site Assessment," (LESA) which uses more detailed considerations of soil capability and potential yields, and provides for the assessment of factors beyond soil productivity in the determination of agricultural potential. The system is now widely used throughout the U.S. The LESA system presents the opportunity to define agricultural lands that have the most productive potential.

### ***LAND EVALUATION AND SITE ASSESSMENT FOR AGRICULTURE***

The Land Evaluation and Site Assessment (LESA) system is a point-based approach that is generally used for rating the relative value of agricultural land resources. In basic terms, a given LESA model is created by defining and measuring two separate sets of factors. The first set, **Land Evaluation**, includes factors that measure the inherent soil-based qualities of land as they relate to agricultural suitability. The second set, **Site Assessment**, includes factors that are intended to measure social, economic and geographic attributes that also contribute to the overall value of agricultural land. While this dual rating approach is common to all LESA models, the individual land evaluation and site assessment factors that are ultimately utilized and measured can vary considerably, and can be selected to meet the local or regional needs and conditions a LESA model is designed to address. The LESA methodology lends itself well to adaptation and customization in individual states and localities. Also in addition to ranking soils for agricultural potential, the LESA system can provide a systematic and objective way to evaluate and numerically rank soils for their relative value for any specific use.

The Land Evaluation and Site Assessment (LESA) system is an analytical tool used to assist decision makers in comparing agricultural sites based on their agricultural value. The LESA system provides an objective and consistent tool to aid decision-makers in evaluating the relative importance of specific sites for continued agricultural use. In this sense, it is a tool for

determining the best use of a site. While in some cases the best use may be some type of development, there are many other situations where the best use is to remain in agriculture. Also, there may be instances where the land is not suitable for agriculture, but neither is it a suitable location for development. In such situations, the LESA system is a valuable tool for determining the use with the least detrimental impact to the environment, economy and aesthetics.

As noted earlier, there are two components to the LESA system; the **Land Evaluation** (LE) portion of the system, which is based on soils and their characteristics, and the **Site Assessment** (SA) portion of the system, which rates other attributes affecting a site's relative importance for agricultural use. The Land Evaluation portion is stable and unchanging because the soils do not change and the data relative to those soils takes a long time to accumulate. The Site Assessment is dynamic and changes on a continual basis because there are regular changes in development, property ownership, roadway improvements, sewer expansions, etc. happening throughout an area.

A LESA system was developed for St. Croix County by a committee consisting of members of the Land and Water Conservation and Planning and Zoning committees; citizens; town officials; county staff from the Land and Water Conservation, Zoning and Planning departments; and NRCS staff. A detailed manual describing how the County's LESA system works and how it was developed is available from the St. Croix County Land Conservation Department. As an appropriate base of information for the agricultural productivity of land in the Town of Emerald only the Land Evaluation component of LESA is discussed here.

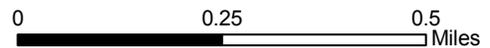
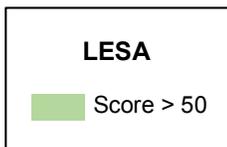
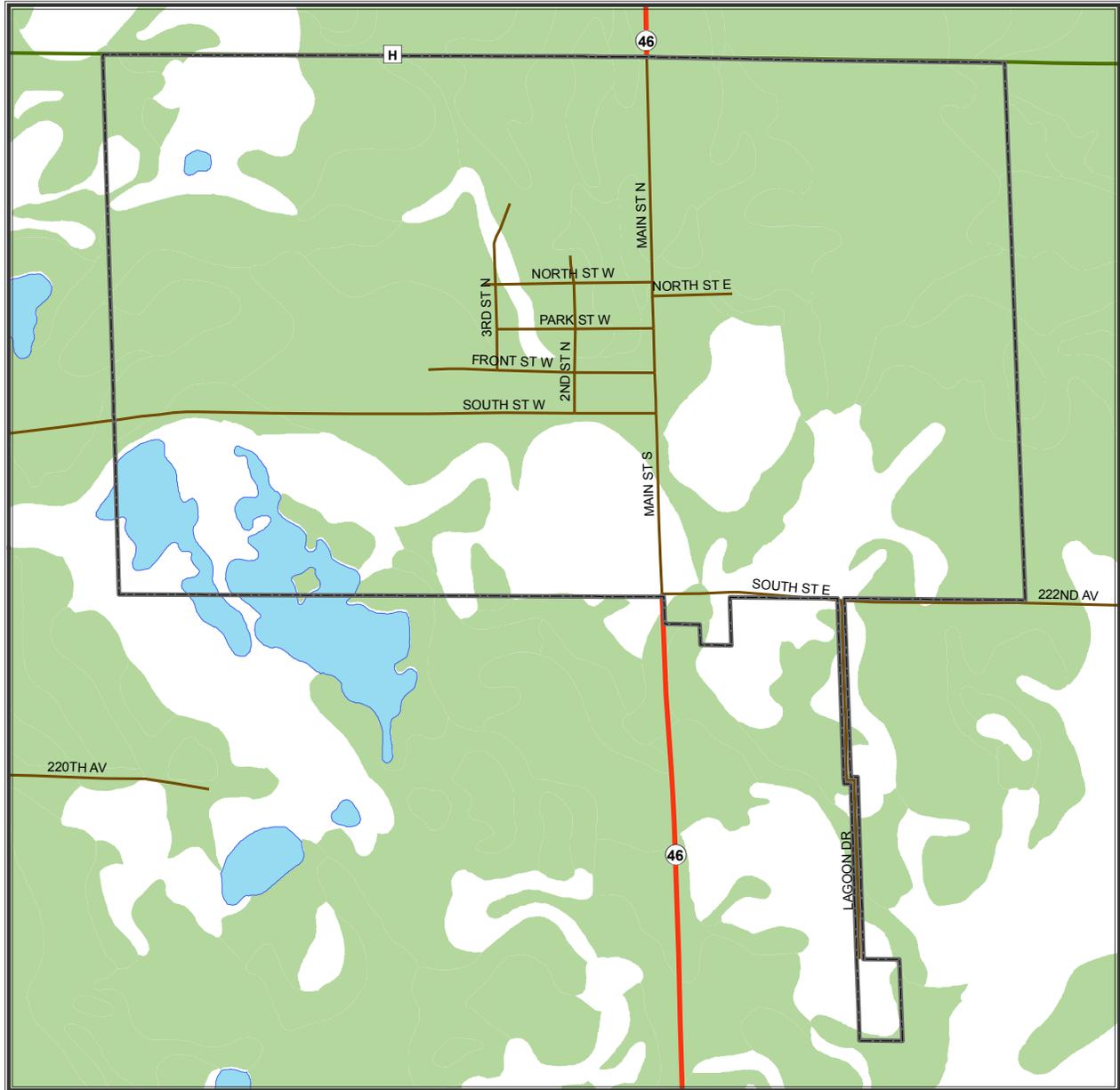
Many physical and chemical soil properties are considered in the LE rating, either directly or indirectly, including soil texture and rock fragments, slope, wetness and flooding, soil erodibility, climate, available water capacity, pH (alkalinity versus acidity), and permeability. Three soil property indexes are combined to produce the LE soil component rating, Productivity Index for corn and alfalfa, Land Capability Class and National Prime Farmland. This produces a rating that reflects the most important soil considerations for agricultural use in St. Croix County. Higher numbers mean greater value for agriculture. LE ratings reflect this productivity potential, as well as the economic and environmental costs of producing a crop. Possible LE ratings range from 0 to 100.

The LESA Committee with assistance from the St. Croix County Land Conservation Department and the District NRCS Soil Scientist selected soils with a score of 50 or more as the soils with agricultural production potential. The Potentially Productive Agriculture Map of the Physical Features map series depicts the LESA Agricultural Soils with a score of 50 or more. Please see the map below.

The LESA system is very flexible. It could be adapted to fit the needs of decision-makers at the local level. Procedures, and information on developing entire LESA systems, are in guidebooks, manuals and other literature, which are available from the NRCS. Local decision-makers can use the guidance to develop a LESA system, which evaluates land, based on local objectives for preservation and management. The Town of Emerald may want to address potential application of the LESA system in its goals, objectives and policies and may want to explore and evaluate its potential use within the town as part of the implementation section.



# Potentially Productive Agriculture Land Village of Deer Park



Deer Park Boundary

SOURCE: NRCS & St. Croix County LESA

## ***WORKING LANDS INITIATIVE***

The Wisconsin Working Lands Initiative was passed as a part of the state's 2009-2011 biennial budget process. The initiative can be found primarily in Chapter 91 of the Wisconsin State Statutes. The goals of the initiative is to achieve preservation of areas significant for current and future agricultural uses through successful implementation of these components:

- Expand and modernize the state's existing farmland preservation program.
- Establish agricultural enterprise areas (AEAs)
- Develop a purchase of agricultural conservation easement matching grant program (PACE).

### **Expand And Modernize The State's Existing Farmland Preservation Program**

- Modernize county farmland preservation plans to meet current challenges
- Provide planning grants to reimburse counties for farmland preservation planning
- Establish new minimum zoning standards to increase local flexibility and reduce land use conflicts; local governments may apply more stringent standards
- Increase income tax credits for program participants
- Improve consistency between local plans and ordinances
- Simplify the certification process and streamline state oversight
- Ensure compliance with state soil and water conservation standards
- Collect a flat per acre conversion fee when land under farmland preservation zoning is re-zoned for other uses

### **Establish Agricultural Enterprise Areas**

- Maintain large areas of contiguous land primarily in agricultural use and reduce land use conflicts
- Encourage farmers and local governments to invest in agriculture
- Provide an opportunity to enter into farmland preservation agreements to claim income tax credits
- Encourage compliance with state soil and water conservation standards

### **Develop A Purchase Of Agricultural Conservation Easement (Pace) Grant Program**

- Protect farmland through voluntary programs to purchase agricultural conservation easements
- Provide up to \$12 million in state grant funds in the form of matching grants to local governments
- and non-profit conservation organizations to purchase agricultural conservation easements from willing sellers
- Stretch state dollars by requiring grants to be matched by other funds such as federal grants, local contributions and/or private donations
- Establish a council to advise the state on pending grants and proposed easement purchases
- Consider the value of the proposed easement for preservation of agricultural productivity, conservation of agricultural resources, ability to protect or enhance waters of the state, and proximity to other protected land
- Ensure consistency of state-funded easement purchases with local plans and ordinances

The Working Lands Initiative is less than a year old and is still in the development stage. Up-to-date information is available from the State's website:

[www.datcp.state.wi.us/workinglands/index.jsp](http://www.datcp.state.wi.us/workinglands/index.jsp).

## FARMLAND PRESERVATION & EXCLUSIVE AG ZONING

This section would not be complete without a discussion of farmland preservation and exclusive ag zoning in St. Croix County. In 1980 the St. Croix County Board of Supervisors adopted a Farmland Preservation Plan. The Plan was intended to guide development away from the most valuable agricultural resources in the County. The plan was written with extensive input from citizens and local officials, especially towns. The Farmland Preservation plan identified several tools for farmland protection. The only tool that was implemented was exclusive ag zoning. The other tools, identifying growth areas and setting development density in conjunction with smaller lot sizes, were not accepted. The plan was developed between 1978 and 1980 as a result of development pressures that had been accelerating since 1975. A Farmland Planning Advisory Committee was formed in September 1977. This committee met monthly for two years to apply for a grant, and develop the farmland preservation plan.

It is interesting that 25 years ago citizens were concerned with the same issues that are discussed today. The following are quotes from the 1980 Farmland Preservation Plan that illustrate some of the discussions and conclusions.

*“Alarmed by rapid changes in the landscape, residents have expressed concern for controlling development.”*

*“The survey results confirm popular support for land use planning to preserve farmlands.”*

*“Development in rural areas has resulted in repeated conflicts between farm and nonfarm neighbors—complaints by nonfarm residents about odor and noise, increased valuations on farmland which can’t be offset by increased production, dogs running loose bothering livestock—to name a few.”*

*“A farming area can comfortably withstand a certain amount of development. However, when the balance shifts away from agriculture, farmers left in the area often lose the alternative to continue farming. Farm service businesses move out of local communities and farmers find themselves having to drive several miles to replace parts, repair machinery and obtain supplies.”*

*“There are also social and environmental costs of rural nonfarm development.”*

*“From an environmental standpoint, land, once developed, is essentially lost forever to agriculture. ... Land being a finite resource, wise stewardship would dictate that the most productive land be saved to produce food for this and future generations.”*

*“In St. Croix County, there is still time to take measures to protect land and guarantee an agricultural community for future generations.”*

*“Throughout the last five years (from 1975 to 1980) citizen interest has been the key moving force behind the concern over loss of farmland, and the planning process.”*

*“The entire farmland preservation issue was initiated by citizens. Citizens have fostered measures to preserve agricultural land through the Task Force and the Advisory Committee.”*

*“There are many hard questions to be answered. The public good must be weighed against the presumed right of owners to use the land however they, as individuals, see fit.”*

In a review of the community input from that time, it is clear that a substantial majority of rural residents supported protection of agricultural resources. Prior to 1974, St. Croix County ordinances required public sewer and water for all lots between one and five acres in size. In 1974, the County enacted a new set of ordinances that allowed one acre unsewered lots and set

distinct requirements for minor and major subdivisions. As a result of these changes rural residential lot creation rose dramatically between 1975 and 1979. As a result, many towns took several steps to slow residential development.

The towns of Baldwin, Cylon, Kinnickinnic, Stanton and Warren adopted subdivision ordinances prohibiting major subdivisions unless they were located on municipal sewer and water. The towns of Cylon, Stanton, Baldwin, and Pleasant Valley also adopted larger lot size provisions in subdivision ordinances. Finally, the towns of Cylon, Stanton, Star Prairie, Somerset, St. Joseph, Erin Prairie, Baldwin, Troy, Pleasant Valley, Rush River and Eau Galle implemented exclusive agricultural zoning, in conjunction with the County. In one case the adoption of exclusive ag zoning occurred even before the Farmland Preservation Plan was adopted by St. Croix County. The Town of Emerald chose not to adopt a subdivision ordinance or exclusive ag zoning anywhere in the town.

Historically there has been some confusion about the difference between exclusive agricultural zoning, farmland preservation contracts and the income tax incentive associated with each. The farmland preservation contracts are a contract between the farmer or landowner and the state, in return for agreeing not to develop his land the owner gets tax rebates based on a formula. The tax rebates are increased if a farmland preservation plan is adopted and certified by the state.

The farmland preservation plan was certified by the state for most of the towns in St. Croix County. Under the contract, the landowner can not get 100 percent of the formula; he can only get 50 or 70 percent.

Exclusive agriculture zoning is also based on the farmland preservation plan, and it is adopted by ordinance enacted by both the town and county. With exclusive ag zoning, a landowner may receive tax rebates at 100 percent of the formula. The chart at right shows the amount of land in exclusive agricultural zoning in Emerald and the other towns in St. Croix County.

***Acres in Exclusive Ag Zoning -- 2009  
St. Croix County***

| TOWN                    | EXCLUSIVE AGRICULTURE |              | AG RESIDENTIAL |               |
|-------------------------|-----------------------|--------------|----------------|---------------|
|                         | ACRES                 | % OF TOWN    | ACRES          | % OF TOWN     |
| Baldwin                 | 14,827                | 71.8%        | 5,257          | 25.5%         |
| Cady                    | 0                     | 0.0%         | 0              | 0.0%          |
| Cylon                   | 14,641                | 63.1%        | 4,855          | 20.9%         |
| Eau Galle               | 4,958                 | 23.6%        | 15,687         | 74.8%         |
| <b>Emerald</b>          | <b>0</b>              | <b>0.0%</b>  | <b>22,385</b>  | <b>100.0%</b> |
| Erin Prairie            | 19,806                | 86.9%        | 2,231          | 9.8%          |
| Forest                  | 0                     | 0.0%         | 0              | 0.0%          |
| Glenwood                | 0                     | 0.0%         | 21,985         | 93.2%         |
| Hammond                 | 0                     | 0.0%         | 20,943         | 98.9%         |
| Hudson                  | 0                     | 0.0%         | 10,969         | 68.2%         |
| Kinnickinnic            | 0                     | 0.0%         | 22,070         | 98.2%         |
| Pleasant Valley         | 8,718                 | 75.6%        | 2,615          | 22.7%         |
| Richmond                | 0                     | 0.0%         | 19,249         | 93.2%         |
| Rush River              | 9,254                 | 81.3%        | 1,462          | 12.8%         |
| Somerset                | 4,922                 | 15.8%        | 25,270         | 81.4%         |
| Springfield             | 0                     | 0.0%         | 21,252         | 96.8%         |
| Stanton                 | 17,919                | 84.3%        | 1,196          | 5.6%          |
| Star Prairie            | 3,547                 | 17.5%        | 16,375         | 80.9%         |
| St. Joseph              | 1,821                 | 8.2%         | 18,405         | 83.3%         |
| Troy                    | 10,899                | 45.9%        | 12,598         | 53.1%         |
| Warren                  | 0                     | 0.0%         | 21,332         | 96.2%         |
| <b>St. Croix County</b> | <b>111,782</b>        | <b>25.0%</b> | <b>266,260</b> | <b>59.6%</b>  |

*Source: St. Croix County Planning & Zoning 2009*

## *EMERALD AGRICULTURE GOALS, OBJECTIVES & POLICIES*

**Goal:** Protect agricultural resources and preserve farming as the economic base and the town's agricultural character while allowing limited residential development.

**Objectives:**

1. Maintain agriculture as the major economic activity and way of life within the town.
2. Manage the rate of development to help limit conflicts between agriculture and non-farm land uses and control the conversion of agricultural land to other uses.
3. Allow development in location, forms and densities, which supports the preservation of agriculture, open space and maintains a distinctive rural community.
4. Encourage individuals to consider land preservation programs to preserve productive farmlands for continued agricultural use.
5. Encourage traditional and nontraditional farming.
6. Develop and support policies that strengthen and maintain a farm operator's right to farm with farm practices that do not threaten public health or safety.
7. Protect surface and groundwater quality.



Emerald supports the continued operation and expansion of existing farms in the town.  
Photo by Barbara Nelson.

**Policies:**

1. Support the continued operation and/or expansion of existing farms and ag businesses in Emerald.
2. Support land preservation programs such as farmland tax credits, use-value assessment, farmland preservation zoning, agricultural enterprise areas, purchase of agricultural conservation easements (PACE), etc. to sustain the continued use of land for farming and agriculture as the economic base and major land use in the Town of Emerald.
3. Encourage St. Croix County to develop programs such as voluntary purchase of development rights, transfer of development rights and purchase of conservation easements to preserve productive farmland.
4. Develop and support policies that strengthen and maintain a farm operator's right to farm with farm practices and associated smell, noise, and dust, that do not threaten public health or safety.

5. Encourage alternative agriculture such as fruit and vegetable farms in the town, designed to supply food to farmers markets and grocery stores in the region’s urban areas.
6. Promote agricultural and development practices which protect surface and ground water quality, including proper erosion control, manure management, and storm water management strategies.
7. Work with St. Croix County on the St. Croix County Animal Waste and the



Emerald Dairy, milking about 1,600 cows, is one of the largest dairies in St. Croix County. The site also includes a calf-raising facility & an educational facility. Photo by Rene’ Speer.

Zoning ordinances to improve relationships and operations between large-scale farms and nearby existing residences.

8. Promote use of the forestry “best

management practices” as minimum standards for logging and encourage forest landowners to enroll in the State’s Managed Forest Land Program to promote further value for timber and wildlife.

9. Encourage development to locate away from environmentally sensitive areas and productive farm and forest lands.
10. Consider the impacts on wildlife habitat, potential locations of rare plant and animal species and archeological sites prior to approving any changes in land use.

11. Develop a Town of Emerald Rural Living Guide insert to provide information to new and existing residents about living in the town.



Corn harvesting in Emerald with associated dust. Photo by Barbara Nelson.

12. Provide copies of both Emerald’s insert and the St. Croix County

Rural Living Guide, which outlines the traditional community norms and expectations for rural residents, to all new residents as part of the property development /purchase and/or building permit /inspection process.

## *DEER PARK AGRICULTURE GOALS, OBJECTIVES & POLICIES*

**Goal:** Encourage the preservation of productive agricultural land in the surrounding towns and throughout St. Croix County and support the farm economy with appropriate local businesses.

**Objectives:**

1. Protect productive agricultural land in adjacent towns by directing residential and commercial development needing sewer service and/or higher density within the village boundaries.
2. Encourage local agricultural support businesses to locate within the village.
3. Support St. Croix County's agricultural land preservation programs.
4. Protect surface and groundwater quality.
5. Utilize regulation to allow appropriate agricultural activities on open land within the village.

**Policies:**

1. Direct development to within village boundaries to limit expansion into productive agricultural lands in adjacent towns to the extent practical.
2. Work with the Town of Cylon to coordinate land uses and to develop transition areas between the village and surrounding agricultural lands in order to preserve farming in the town.
3. Encourage a farmer's market in the village to support farmers in neighboring towns and provide fresh local foods and products to village residents.
4. Require that new residents receive a copy of St. Croix County's "Rural Living Guide" that outlines the traditional community norms and expectations for rural residents.
5. Require that new residents also receive a copy of Deer Park's "Small Town Guide" insert which will assist them in understanding the expectations for village residents.
6. Support and encourage agricultural practices, which protect surface and ground water quality, including proper erosion control, manure management, and storm water management strategies.
7. Continue to use zoning regulations to limit agricultural activities within the village that are incompatible with smaller lots, greater densities, and local businesses, including prohibiting livestock and spreading of manure.



Agricultural support businesses, such as Deer's Food Locker, are important to the rural area and surrounding farms. There are only three locker plants left in St. Croix County. Deer Park's surrounding towns are trying to protect agriculture. Locating additional agricultural support businesses in Deer Park would be a good fit. Photo by Carolyn Mertz.