

The Kentucky Agricultural Economic Outlook for 2014

edited by Will Snell, Kevin Heidemann, and Steve Isaacs

2013-21



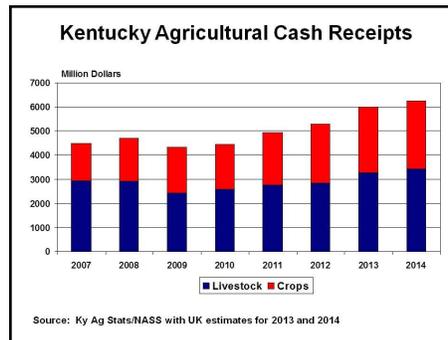
The U.S. / Kentucky Farm Economy *Will Snell*

2013 Review: Following record crop prices in 2012, U.S., Kentucky, and global farmers sought to increase crop acres in 2013. Nearly ideal growing conditions across the commonwealth, and in some parts of the country, led to much higher crop yields, but considerably lower crop prices. On the livestock side, tight supplies, sustained strong export markets, and lower feed costs late in the year contributed to continued price strength and improved profitability. The U. S. Department of Agriculture is projecting that U.S. net farm income will achieve a record high of \$131 billion in 2013, up 15% from 2012 when significant crop insurance payments supported incomes, and topping the previous record high of \$118 billion in 2011. After accounting for inflation, the 2013 U.S. net farm income level is forecast to be the highest level on record since 1973. Even with lower crop prices, record crop production is expected to boost U.S. crop revenues. The value of U.S. livestock production is also predicted to increase on the heels of higher prices. Government payments remained relatively stable (around \$11 billion), while production expenses swelled to record high levels in response to higher rent, labor, and feed costs. Despite record U.S. net farm income (which includes inventory adjustments), USDA is actually forecasting agricultural cash receipts to be flat in 2013 as a larger percentage of 2013 grain crops will likely be stored and sold in 2014. U.S. agricultural export values remain near record levels, and growing asset values and low debt levels will keep the U.S. farm balance sheet relatively strong entering 2014.

Similar to the national picture, the Kentucky agricultural economy remains very robust. Despite the 2012 drought, Kentucky agricultural cash receipts exceeded \$5 billion for the first time in 2012, and our estimates project that Kentucky agricultural sales could approach, or possibly exceed, \$6 billion in 2013 (Figure 1). The livestock sector will lead the growth due to exceptionally strong equine, poultry, and cattle markets this past year. Even with much lower prices and a large percentage

of the crop stored for sale in 2014, Kentucky grain cash receipts may still increase for the calendar year 2013, given exceptional yields that are considerably above national yields. Increased tobacco acres and prices will offset lower yields, potentially leading to the highest tobacco crop value since the 2004 tobacco buyout. Despite higher production costs, growth in cash receipts, and a large carryover of 2013 grain, Kentucky net farm income will likely remain above the \$1.5 billion level observed in 2011 and 2012. However, this is still well below our record high of \$2.1 billion in 2005 when lump sum tobacco buyout payments inflated income levels.

Figure 1



2014 Outlook: The agricultural outlook for 2014 is mixed with expectations that the livestock outlook will be very upbeat, while lower corn prices (in response to increasing global supplies and proposed reductions in the ethanol mandate) are expected to reduce crop revenues. Nationally, agricultural cash receipts and net farm income are expected to fall in the midst of lower crop prices, which could lead to some softening of real estate values in some areas. Kentucky's agricultural economic outlook appears more optimistic, especially if the equine market remains firm and if a large carryover in grain sales will be figured in 2014 agricultural cash receipts. Kentucky's beef, swine, poultry, and dairy profitability will be enhanced with anticipated strong prices and lower feed costs. Despite slumping cigarette sales and on-going concerns over regulatory, labor, and infrastructure issues, tight quality burley supplies coupled with smokeless to-

bacco product growth could enable the value of Kentucky's tobacco production to remain near post-buyout highs in the coming year. Additional market outlets and continued growing demand for local fruits and vegetables will continue to expand Kentucky produce sales, while our greenhouse and forestry industries hopefully will continue to benefit from an improving general economy. In aggregate, Kentucky agricultural cash receipts could buck national expectations with slightly higher agricultural sales in 2014, while Kentucky's net farm income will likely follow the national downward trend in response to depressed crop prices and an expected large negative inventory adjustment for 2013 grain storage. Issues to follow in 2014 will be how cropland areas adjust to a lower priced grain environment, shifts among crop acres, export value and volume with increased crop supplies at lower prices, the degree of expansion in the livestock sector amidst a favorable price/profitability outlook, and the legislative outcomes of energy policy, immigration reform, and the farm bill.

Tobacco *Will Snell*

2013 Burley and Dark Tobacco Review: Following a 25% decline in world burley production in 2012, tobacco buyers were hopeful that the U.S. would supply more burley in 2013. World burley production likely rebounded in 2013, but most of the growth occurred in lower quality/filler-style markets. U.S. burley contract volume and acres planted were up in 2013, but excessive rains in some areas destroyed acreage and likely caused yields to fall. According to USDA, 2013 U.S. burley production is forecast at 201.7 million pounds (-2%). However, most industry personnel believe this estimate is too optimistic, with a crop more likely in the 180 to 190 million pound range. U.S. burley disappearance (domestic use plus exports) in recent years has stabilized to around 210 to 220 million pounds. Tight U.S. burley supplies have limited export opportunities in recent years despite favorable exchange rates. Domestic use continues to be hindered by declining domestic cigarette consumption (falling 3 to 4%); but competitive prices, plus

perhaps some concern over Food and Drug Administration regulation, has possibly increased U.S. burley relative to imported burley. Consequently, global supplies of quality/full flavor burley remained tight entering the 2013-2014 marketing season. U.S. burley averaged around \$2.05 per pound during the early part of the marketing season, representing the highest price in the post buyout era. U.S. dark tobacco producers continue to benefit from growing domestic snuff sales (increasing 3 to 4% annually) and limited foreign competition. After several years of acreage adjustment, U.S. dark tobacco acreage was up around 2,000 acres this year, and USDA expects a 10% larger dark tobacco crop in 2013 compared to last year (although most industry officials project smaller increases). Based on contract prices, look for 2013 dark fire-cured prices for quality leaf to be in the neighborhood of \$2.60 to \$2.68 per pound and near \$2.25 to \$2.30 per pound for dark air-cured. A larger overall (burley and dark) Kentucky tobacco crop, coupled with higher prices, will likely generate a Kentucky tobacco value exceeding \$400 million for 2013 and may ultimately end up being the highest valued tobacco crop since the buyout in 2004.

2014 Burley and Dark Tobacco Outlook: While the market appears favorable for 2013, it is important to realize that increasing short-term market opportunities and higher prices for U.S. burley growers are being driven by tight supplies and not from overall demand expansion. Based on the anticipated supply/demand balance, U.S. burley contract volume could further increase for some growers in 2014 (subject to 2013 marketings). Added to this equation will be expectations of lower grain prices, which could boost burley acreage above industry needs. This market reaction, coupled with increasing global production, could eventually put some downward pressure on future burley prices. Even with continued smokeless product sales growth, a 10% larger 2013 dark tobacco crop (if it materializes) may cause the industry to re-evaluate additional acreage expansion in 2014. Consequently, dark tobacco acreage may not change much in 2014, with prices remaining firm. Despite the challenges facing the industry, 2014 should be another good year for the Kentucky tobacco sector, but the outlook remains very cloudy beyond the coming year. Long-term uncertainties include immigration reform, future crop insurance changes, U.S./global tobacco regulations, excluding tobacco from trade agreements, and the impact of a small, but growing market for harm reduction tobacco products. The potential implications of flavoring/additive bans currently being debated in Europe, and around the world, are of particular concern for burley long term. Various non-tobacco ingredients are added in the manufacturing process to

offset some of the taste characteristics evolving from incorporating burley in blended cigarettes. Presently, it is unclear whether full flavor burley tobaccos (like U.S. burley) would have any advantage over lower quality/filler style burley tobaccos if a ban was adopted in a particular market. Besides affecting the overall demand for burley, other regulatory actions to influence manufacturing processes could ultimately impact grower production practices, leading to lower burley yields and profits. Also, a growing market for electronic cigarettes could have a significant, adverse impact on U.S. burley demand both domestically and globally. Alternatively, social responsibility concerns (e.g., child labor laws), environmental challenges, and the ability to adjust to government-induced regulations/consumer concerns may provide U.S. burley growers with advantages over their competitors. Thus, despite some short-term optimism, U.S. burley producers have a multitude of factors limiting expansion and reinvestment in future burley production.

Grains Cory Walters

2013 Review: Last spring, low ending stocks were supporting corn, soybean, and wheat prices. The primary driver for low ending stocks was the 2012 drought that hit the U.S. corn market. As a result of lower supplies, prices rose. Between 2011 and 2012, corn price increased \$0.67 (+11%), soybean price increased \$1.90 (+15%), and wheat price increased \$0.53 (+7%). Facing higher prices, plus other factors such as input prices and the experience of the 2012 drought, Kentucky producers shifted planted acreage in spring of 2012 between all three crops: corn planted acres decreased by 7% to 1.53 million, soybean planted acres increased by 11% to 1.65 million, and wheat planted acreage increased by 21% to 0.70 million acres.

Kentucky producers have experienced very rare weather events, back-to-back. Corn production is particularly interesting. Following a severe drought in 2012, we are now realizing a record yield of 173 bushels per acre (154% higher than 2012). Soybeans did not experience the dramatic yield swing that corn did, and they are expected to yield 49 bushels per acre, or 23% higher than 2012 yields. The Kentucky wheat crop did very well, coming in at an average of 75 bushels per acre, or 21% higher than 2012.

According to the November 2013 World Agricultural Supply and Demand Estimates (WASDE), the U.S. corn crop is expected to produce 13.99 billion bushels, which is a 30% increase from the drought affected 2012 crop. Yield is expected to be 160.4 bushels per acre, which is an astounding 30% higher than last year. Acres planted in 2013 were 2% lower

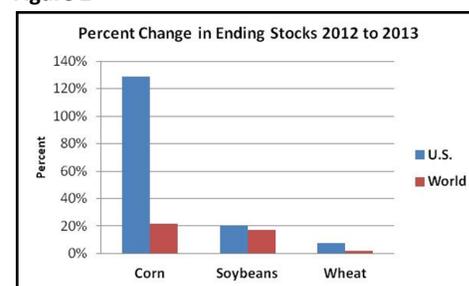
than in 2012. A small reduction in acreage and a much higher yield has resulted in nearly 30% more corn than in 2012.

The increased production has put downward pressure on corn price, thereby, increasing consumption. Total use is predicted to be up 1.8 billion bushels, or more than 17%. All consumption categories are expected to increase and exports will lead the way with a 91% increase over 2012 export levels. The increase in use is not enough to offset the large increase in production; consequently, ending stocks are expected to increase 129% over 2012 levels (Figure 2).

U.S. soybean production is predicted to come in at 3.26 billion bushels, up 7% from 2012. While U.S. producers planted 1% fewer acres in 2013, yields are predicted to be up 8%. Increased supply has caused lower prices, which has increased consumption. Soybean consumption is predicted to be at 3.24 billion bushels, which is 5% more than in 2012. Exports are expected to increase by 130 million bushels, or 10%, and crushing is expected to remain the same from 2012. A larger crop than use implies an increase in ending stocks. WASDE predicts a 21% increase in U.S. soybean ending stocks (Figure 2).

U.S. wheat production in 2013 came in under 2012 levels by 7%. Wheat use is predicted to increase by nearly 1%, with predicted increases in exports and decreases in feed and residual. Overall, U.S. wheat ending stocks are predicted to drop 21% (Figure 2).

Figure 2



2014 Outlook: We are entering the 2014 crop year with an exceptionally larger supply of corn, a larger supply of soybeans, and a smaller supply of wheat. Prices have responded by moving lower for corn, soybeans, and wheat. These price levels are expected to continue until planting season. However, the market will be sensitive to changes in use, with the primary questions being centered on corn exports (likely increasing), corn for ethanol (could be decreasing), soybean exports (likely increasing), and soybeans for biodiesel (likely not increasing). Weather, from 2012 to 2013, has proven to be independent between growing seasons, so next year's weather is completely uncertain. Therefore, once planting starts, prices will shift focus to production prospects.

Entering the 2014 crop year with lower prices will force producers to look for ways to lower costs and minimize revenue risk. There is a much higher chance of losing money in 2014 than 2013 because prices have moved lower and are expected to remain in the current trading range. The two primary tools aimed at reducing revenue risk are crop insurance and forward contracting. For crop insurance a Revenue Protection (RP) policy, high coverage level (75% and higher), trend adjustment (if available), and enterprise units can lower revenue risk. Forward contracting coupled with a RP crop insurance policy and contract sales of a percentage of expected production can also lower revenue risk. The percentage of sold bushels varies with yield risk. Low yield risk implies a higher percentage of bushels sold. A high chance of producing a zero yield suggests forward contract is not a good idea. With the best crop insurance policy and the correct amount of forward contracting, the prospects of revenue being greater than costs are quite strong.

Livestock and Meats

Kenny Burdine and Lee Meyer

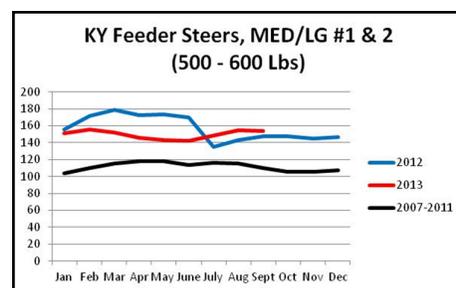
Equine 2013 Review: After reaching a low of \$700 million in 2010, Kentucky equine receipts posted gains in 2011 and 2012. Based on recent sales, it appears that the upward trajectory continued during 2013. Keeneland's September yearling sale posted a 28% increase in gross sales and was followed by a 38% increase in the November breeding stock sale. These sale results are indicative of a market that has continued to rebound from post-recession lows.

Equine 2014 Outlook: Looking forward to 2014, the Kentucky equine market appears poised to continue its steady improvement. Continued strong sales and likely increases in stud fees should support the market in the coming year. Assuming that demand remains relatively strong, receipts are likely on-track to post another year-over-year increase.

Cattle 2013 Review: The feeder cattle markets in 2012 and 2013 provided strong evidence of the impact that corn prices have on feeder cattle prices. Optimism turned to pessimism during 2012 as drought severely reduced the size of the 2012 corn crop, but major decreases in corn price during 2013 fueled a feeder cattle market that got stronger as the year went on (Figure 3). For the most part, Kentucky weather was also much more favorable during 2013, which resulted in high hay production and delayed the start of hay feeding for most cow-calf operations. The improving market and good forage production also provided an excellent summer for stocker operations coming off a very challenging year in 2012.

Cattle 2014 Outlook: Tight supplies will once again provide overall support for feeder cattle markets in 2014. The combination of tight supplies and cheaper corn should result in a considerable strengthening of calf prices by spring, which will likely reach levels considerably above those seen in the spring of 2013. While both spring and fall prices will likely exceed 2013 levels, year-over-year increases are likely to be lower in the fall. If weather cooperates, it is possible that we could see interest in expansion in some areas of the country in the coming year. However, once expansion begins, it will take at least two years before heifer calves can be developed, bred, and produce their first calves. Wild cards certainly exist, but the very positive supply picture and lower price of corn suggest that 2014 will be a very good year for cattle producers.

Figure 3



Dairy 2013 Review: By year's end, 2013 milk production is projected to have increased by less than 1% from 2012. After a great deal of variability during 2012, milk prices were relatively flat in 2013. For the first 10 months of the year the U.S. All Milk Price averaged \$19.58 and traded in a range of \$19.00 to \$21.10 per cwt. While prices are strong by historical standards, high feed prices squeezed profits for most of the year. According to USDA's January estimates, Kentucky began 2013 with 72,000 dairy cows in production, down 4% from 2012.

Dairy 2014 Outlook: Lower feed prices in 2014 should improve margins in the dairy sector and will likely lead to an increase in dairy cow numbers. USDA is currently projecting a 1.6% increase in milk production for 2014, which is fueled by an increase in both dairy cow numbers and milk production per cow. Higher production levels will likely put pressure on prices next year, but producers should still see milk prices within \$1 per cwt of 2013 levels.

2013 Hog Review: Pork production did not decline as expected but is holding steady in spite of high feed costs for the first half of the year. Per capita consumption rose by one pound up to 47 pounds. Prices for the first quarter were about \$60 per cwt. (live weight basis), and rose to about \$70 per cwt. in the summer quarter. The higher prices hurt exports, but exports still exceeded 20% of production.

2014 Hog Outlook: Stronger demand and small increases in exports will help take a projected 2% increase in pork production off the market, and will still allow for prices to average in the low \$60s for the year. A continuation of the lower, late 2013 feed costs will improve year-over-year profitability. Production is likely to be up the most in the second half of the year, which will moderate prices late in 2014.

2013 Sheep and Goat Review: According to the USDA, national sheep numbers going into 2013 were down slightly to 5.3 million head, but Kentucky's inventory rose 8% to 43,000 head. Lamb prices continued to drop from their 2011 high. The 2013 price for light lambs at Kentucky markets averaged in the \$1.30s, which is down about 15%. Goat prices held steady in 2013 with Kentucky prices for Selection 2, 40-to-60-pound kids, averaging near \$2 per pound. Prices have been on a plateau near this level since 2010. Goat numbers, at 2.8 million head, were down 2%. Kentucky's flock stabilized in 2013, rising about 1% to 69,000 head.

2014 Sheep and Goat Outlook: Little change in lamb production is expected for 2014. Imports, which are near the same level as domestic production, are expected to decline. That, along with improving demand, is expected to boost prices a modest 5-10%. Goat prices are likely to remain at last year's level as production stabilizes. There will be little change in the size of national goat flock and a strengthening economy.

2013 Broiler Review: Chicken prices took another jump in 2013. The 12 city wholesale price increased \$1 per pound, which is a 15% increase. This was in spite of 2% more product reaching the market. Continued increase in exports supported this market.

2014 Broiler Outlook: Moderating feed costs have increased profitability of the broiler enterprise and are expected to encourage a 3% increase in production. Exports are likely to change very little. Per capita consumption is expected to continue to rise up to 83 pounds per person in 2014, accounting for 40% of total meat and poultry consumption. The increase in production is likely to put a lid on prices, which should keep them just under \$1 per pound.

Horticulture

Tim Woods

2013 Review: Just 13 years ago, in 2000, when Kentucky was starting to make a concerted effort towards diversification and development of the horticulture industry, the value of all horticulture farm cash receipts were \$75.2 million; with floriculture, nursery, greenhouse, and sod amounting to \$58.8 million and produce reaching \$16.4 million. Kentucky's production

duce (vegetables/fruit) industry has seen steady growth over this period, even through a difficult economy. The green (nursery/greenhouse) industry has been more negatively impacted during the slow recovery, but has still grown in total sales. Horticulture industry cash receipts grew to \$110 million in 2012, up 46% over this time span, mostly driven by the growth in produce sales. Current horticulture industry sales trends point towards 2013 gross sales winding up somewhere around \$110 million to \$120 million, which will be about even or slightly ahead of 2012 sales.

Produce Industry: Gross produce receipts have steadily increased each year over the past decade as more producers have benefited from additional direct market channels, especially farmers markets and auction sales. We saw record produce sales again for Kentucky in 2012, particularly with vegetables, but poor spring weather significantly impacted fruit. Weather in 2013 turned out to be much more beneficial to fruit than vegetables, but markets picked up significantly through the summer. Producer numbers and acreage have continued to expand with relatively strong planting intentions looking forward to the next three years. Direct markets remain an important channel for most of our producers. Over 2,500 vendors sold in farmers markets the past year. On-farm markets, wineries, CSAs, and direct-to-retailer marketing, in conjunction with “buy local” merchandising and agritourism, has continued to grow the industry. Auction and other wholesale channels have experienced significant growth in number and scale, including the number of producers in attendance, due to the sustained interest in local and regional produce throughout Kentucky markets. Total produce sales will be higher again in 2013. The most recent planting intentions data indicates a total of around 13,000 acres of produce crops in Kentucky. Fruit crop acreage was an estimated 3,000 acres and vegetable crop acres were estimated at 10,000. Kentucky had around 10,500 acres in all produce in 2002. While Kentucky remains a relatively minor produce supplier, compared to surrounding states, the sales growth in Kentucky has significantly outpaced that of surrounding states, especially for fruit.

Green Industry: The green industry nationwide is driven by new home construction and healthy consumer spending, which have been in a deep and extended slow down for the past four years. Greenhouses, sod operations, landscapers, and mid-size nursery businesses grew rapidly between 2002 and 2006, but have experienced difficult times since. A continued weak overall economy and relatively high input costs, especially labor, resulted in another weak, though slightly improved, marketing

season for 2013.

2014 Outlook: Direct market, auction, and independent grower-shipper wholesale sales will likely increase again this next year. Produce demand has been very strong and sales were only limited by early weather conditions. There are six active produce auctions in Kentucky, several just opening within the last few years, which are each reporting steady to moderate growth in 2013. However, a number of important issues will shape commercial fruit and vegetable production in Kentucky. A recent survey of the Southeast horticulture extension specialists pointed to labor management and food safety standards and compliance as the top issues influencing production at this time. These will likely be key industry drivers during the next few years. Gross sales will continue to be driven by higher-value direct marketing at farmers markets, directly off the farm, and directly to food service. Wholesale opportunities are expected to expand as demand for local products remains strong in local markets. Overall produce acreage will experience growth, and higher-value market channels should see sales increasing over the next few years.

The green industry should see a modest rebound in 2014 as the economy moves toward recovery, at least in terms of housing starts. Floriculture and service-oriented enterprises are expected to see an earlier response to the recovery, followed by nursery and sod. While nursery firms are continuing fairly conservative business strategies, a relatively high percentage (35%) indicated they were recently planning at least some capital improvements with a view of future growth.

Forestry

*Jeff Stringer, Bobby Ammerman,
Billy Thomas, and Alison Davis*

2013 Review: The forest industry improved significantly in 2013, and most sectors and commodities performed better than expected. 2013 saw a reversal of sluggish delivered log prices experienced in 2012. Overall statewide average prices increased by 11.4% when compared to 2012. Yellow-poplar experienced the greatest increase. Grade 1 logs rose to \$337 per thousand board feet (MBF) from \$167/MBF in the fall of 2012, which is a 50% increase. Ash, despite the occurrence of emerald ash borer, increased 12.2% (\$431/MBF). Railway tie logs increased 11%, ranging from \$329 to \$343/MBF. Hickory tie logs commanded the highest value statewide (\$371/MBF), while ash exhibited the highest regional price (\$420/MBF) in south central Kentucky. White oak stave logs used in barrel manufacturing maintained the relatively high prices paid in 2012

and averaged \$875/MBF. Pine and hardwood pulpwood prices were stable in 2013, averaging \$23.17 and \$22.50/ton, respectively. In 2013, demand exceeded supply for all log types and pulpwood for most regions of Kentucky, due to the extremely wet conditions that reduced logging output during the first half of the year. However, indications are that Kentucky will remain the leading producer of hardwood sawlogs in the South, and one of the top three in the nation.

In 2013, the forestry industry is estimated to provide \$7.9 billion in direct contributions and a total contribution of \$12.7 billion to Kentucky's economy. This is an increase of 2.9% and 3.3%, respectively, compared to 2011. Employment increased as well. The forest industry directly employed an estimated 27,574 in 2013, and resulted in a total contribution of 59,306 jobs in the Commonwealth, an increase of 4.6% and 4.3%, respectively, since 2011. While forestry sector contributions increased, the number of facilities was flat. There were 703 facilities in 109 counties in 2013 compared to 708 facilities in 2012. Sawmills and logging are estimated to show increases in direct revenues in 2013, \$826 and \$717 million, with secondary industry increasing to \$1.9 billion. Kentucky's paper producers are estimated to maintain stable output in 2013, and converters fell less (-1.24%) than overall paper consumption rates in the U.S. (-4.7%). Wood related exports are expected to increase with an estimated \$203 million shipped in 2013 compared to \$175 million in 2012. Wooden barrels led exports through the first half of 2013; followed by oak lumber, hardwood pulp, other lumber, and railway ties. The majority of shipments were to Europe (40%), North America (Canada and Mexico) (28%), and Asia (20%).

2014 Outlook: The outlook for 2014 is encouraging because primary mills expect increases in sales, pulp, and paper will remain stable, and paper converters, while experiencing losses, should still outperform national figures for reductions in paper usage. Demand and prices for a number of important species, including red oak, are projected to increase. Housing starts indicate that yellow-poplar used for trim will also maintain value and demand in 2014. Demand for sawlogs, tie logs, staves, and pulpwood should also remain stable or increase. The wet weather in 2013 has caused low log inventories in a number of locations, which will result in a seller's market entering into 2014. The logging sector continues under stress due to the high cost of parts and fuel relative to delivered log and pulpwood prices. However, improvement in markets should help this sector. In general, projections are for improvement in most forestry sectors in 2014, including markets for timber.