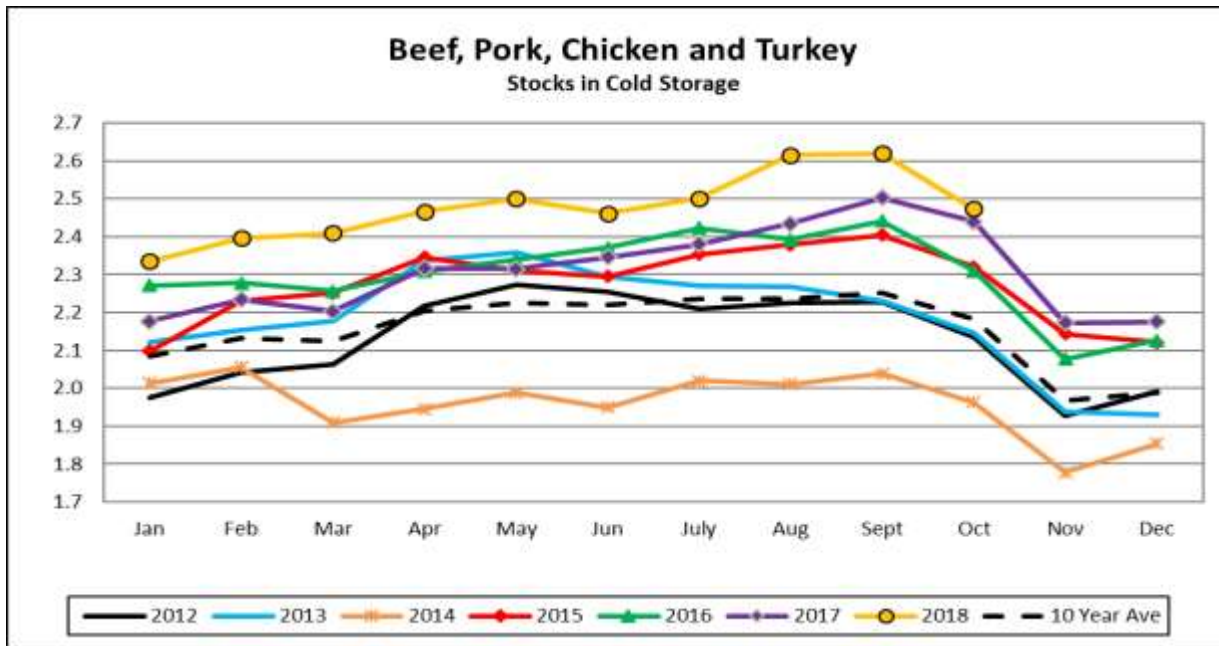


Hog/ Corn Ratio

November 27, 2018

The latest USDA Cold Storage report showed record high combined beef and pork, chicken and turkey in cold storage at the end of October, at 2.473 billion pounds. Beef and pork in cold storage was only the 4th highest ever, thanks to strong export sales. There is still some serious competition for consumer dollars, however.

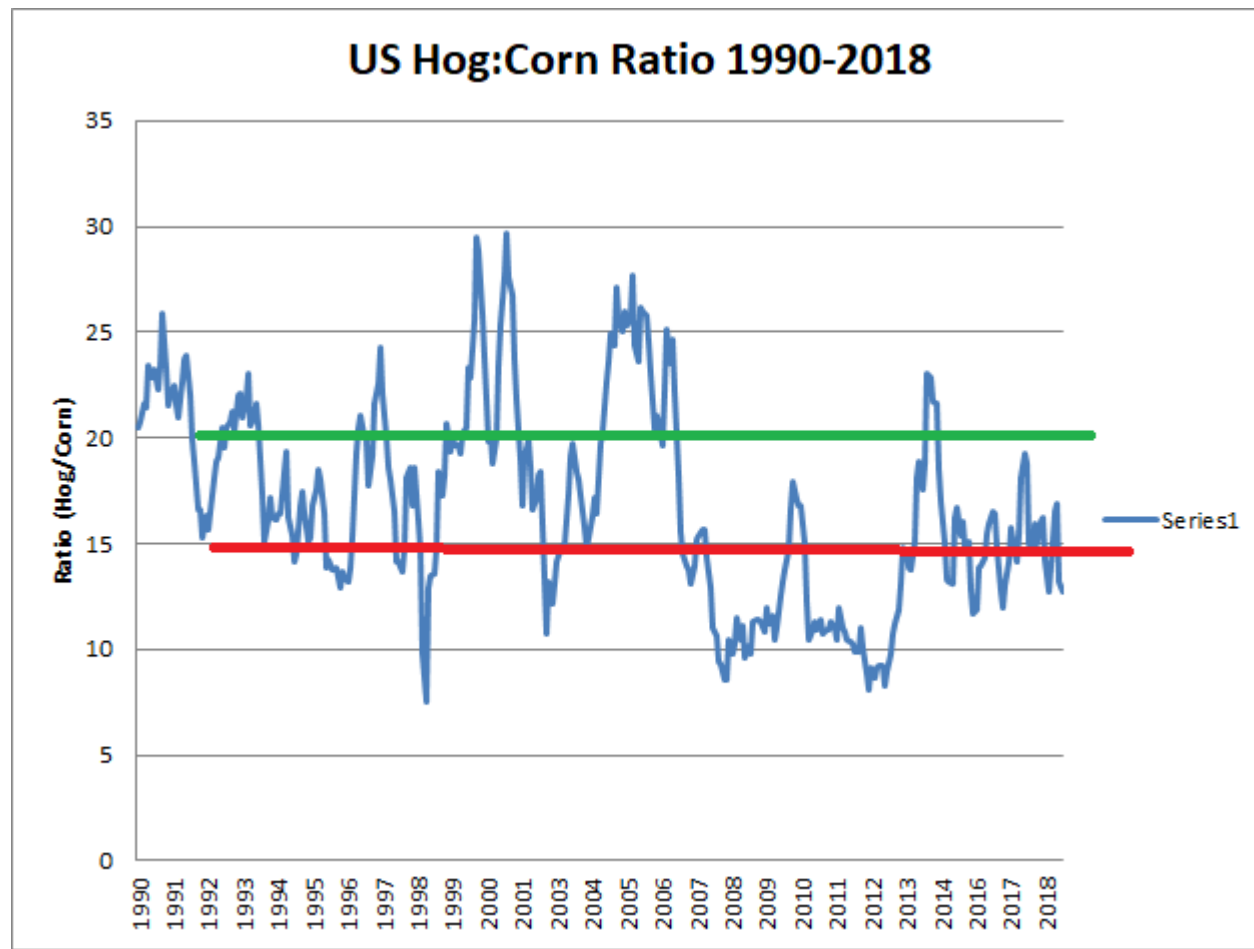


As I have said on many occasions (and attribute to Dr. Tom Stout at Ohio State back in the 1970's), the only rule in the meat business is "sell it or smell it". When supply is up, you either entice the US consumer to eat more per capita or export it to another global consumer. You can put it in the cooler for a while, but eventually it has to move. That enticement to do so is done via price, and if prices go low enough the supply shrinks due to producers going out of business. While there are fewer in-and-outers in the US hog business these days, and bankrupt operations tend to come back online with new owners, there is still some response to lack of profitability. We are coming up on the December Hogs & Pigs report, so thought it worthwhile to look at where hogs are in the process.

One historical measure of hog profitability is the Hog:corn ratio. We have plotted the history of that ratio since 1990 in Chart #1. The two heavy lines on Chart #1 represent the area where hog producers historically would chose to expand or contract production. Above the green line, hog producers have historically expanded their operations in response to the improved margins. Below 15, the red line, operators are under stress and the least efficient or higher cost operations are bleeding equity. Typically this is followed within 18 months by pull back in hog numbers. The blue line is a cash ratio (IA/MN hogs vs. Omaha corn) and does not reflect the impact of hedging or certain types of formula sales. Most producers were better off in the 2008-2012 period than the ratio suggests,

because they were hedged coming into the downturns. That is not the same as saying that everyone made money. The hog:corn ratio for September 2018 was 12.7:1, dipping into that red zone of financial stress and the lowest since November 2016. The long term average for the ratio, since 1990, is 17.64:1. For 2018 to date, it has averaged 14.71.

Chart #1



Since the ratio is a combination of corn prices and hog prices, both can move the ratio. The low in 2012 for the ratio was obviously due to the US drought, with the \$7.60 cash corn prices. The low in 1998 was all on the hog side, as a lack of slaughter capacity in the 4th quarter hammered hog prices so low that piglets were being killed or given away. The rise into expansion territory in 2014 was due to both declining corn prices and all time record high hog prices due to the death losses from the PED virus. That was (we hope) a one off event, but it definitely triggered an expansion phase in hog production that is still underway today.

Chart #2 shows the impact of those profitability situations on breeding herd numbers. Here we are using the December 1 Kept for Breeding number. As you well know, US hog production has continued to expand over the years, despite fewer hog operators. December 1 numbers peaked in 2007, just as the Hog:corn ratio was dropping to the red line. Sow and gilt numbers bottomed in 2013 as the hog:corn ratio rallied back from 8.3:1 to 15. It ultimately went above 20. There have been several brief forays into the 12-13 zone, but not enough time spent there to encourage liquidation.

Chart #2



The drop in the hog:corn ratio into liquidation territory suggests that we should see a slow down or even a reversal in the size of the hog herd. However, September was only the second month below 15, and it can take a while for financial losses to accumulate to the point of pain. In the 2007 example, the ratio dipped below 15, and bottomed at 8.6 in April 2008. December hog inventory was record large in 2007, but showed the effects of the extended weakness by the next December. Year over year inventory numbers were still positive in the March, June and September 2008 Hogs and Pigs reports. We would also note that pork has been remarkably resilient in the face of selective Mexican tariffs and very wide ranging Chinese tariffs that have hobbled exports compared to what they might have been.

If you are a cattleman waiting for the hog guys to cut back, or a hog guy waiting for somebody else to exit, you may have to wait a while.