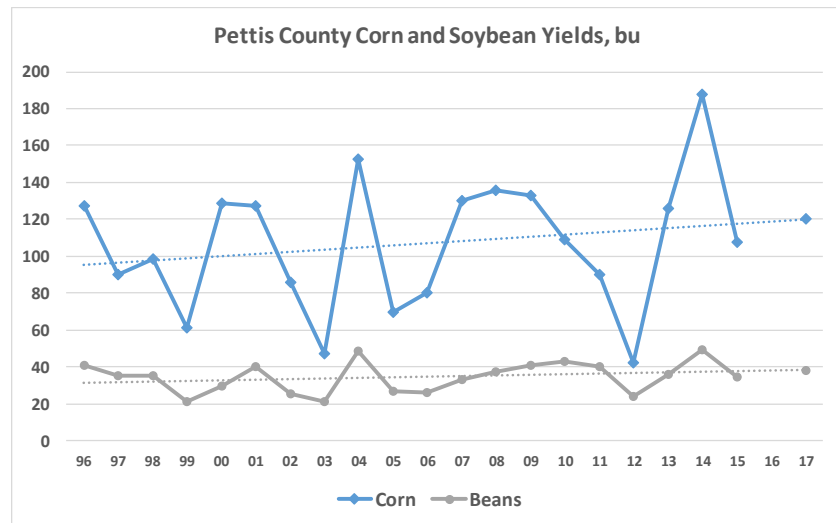


Let's do a quick review of crop yields for the county, but more importantly how crop yields have varied over time. County yields are useful to get an idea of expected future revenues and gauge production risk. The data quantifies what we instinctively know—there is a lot of yield variation (risk) in west central Missouri. This should be considered when making any decisions using projected income.



The chart above shows corn and soybean yields for Pettis County over the last 20 years, as reported by USDA-NASS. (Milo and wheat county yields are incomplete. 2016 yields are not yet available).

Pettis county crop yields, bushels per acre, 1996-2015.

	Min	Max	5 Year Mean	10 Year Mean	20 Year Mean	20 Year Median	20 Year Std Dev	Annual Trend	2017 Trend
Corn	42.1	187.5	110.7	114.1	106.5	108.2	35.6	1.18	120.0
Beans	21.2	49.3	36.8	36.4	34.5	35.6	8.2	0.33	38.2

Now, look at the table above for statistics which measure variation or dispersion. Since 1996, corn yield has averaged about 107 bushels within a range of 42 to 188 bushels. Soybeans have averaged 34.5 within a range of 21 to 49. (Yields not de-trended).

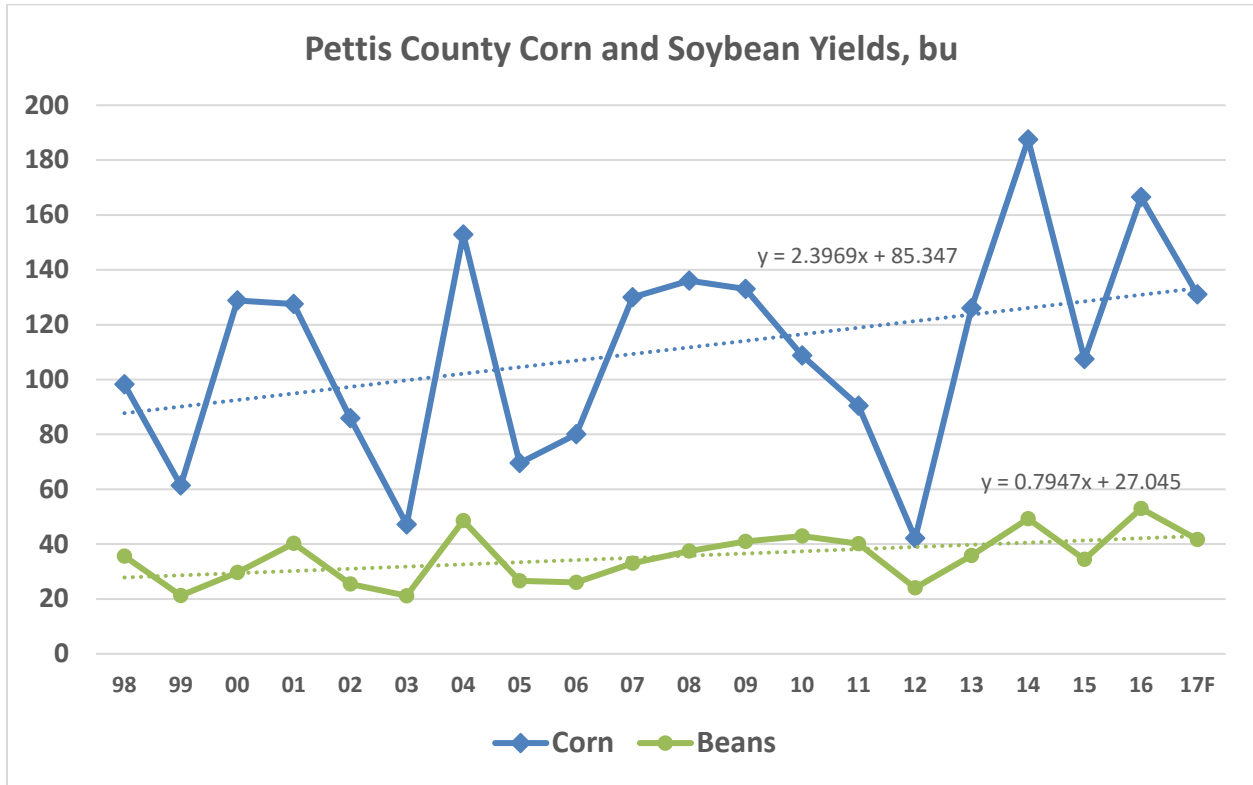
Over time, yields do trend upward. The *annual average* trend for corn is 1.18 bushels and 0.33 for beans. Extending the trendline through 2017 “predicts” county average yields of 120 bu corn and 38 bu soybeans. When 2016 yields are confirmed, the trendline will likely be tilted up some, but not much.

I have looked at the data to compare crop yield risk for all Missouri counties. In case you are wondering, the statistics show that Pettis is one of the highest yield risk counties in the state. The lesson is this: Yes, when it rains we can produce like 2014 or 2016, but if historical weather patterns hold true we can't expect those years to occur very often. Years like 2013 or 2015 are much more likely to occur.

There have been some claims/hopes that national corn and soybean yields have/will jump to higher plateaus due to recent advances in seed genetics and other technologies. Several studies have examined this hypothesis and, so far, a significant yield boost is not verifiable in the data.

HAPPY NEW YEAR!  
 Bdc

March 2017 update with confirmed 2016 estimates



Pettis county crop yields, bushels per acre, 1997-2016.

	Min	Max	5 Year Mean	10 Year Mean	20 Year Mean	20 Year Median	20 Year Std Dev	Annual Trend	2017 Trend
Corn	42.1	187.5	125.9	122.8	108.5	108.2	37.7	2.365	131.6
Beans	21.2	53	39.4	39.1	35.1	35.6	9.1	0.692	41.7