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Can 'Lost' Crop Acres Be Found?

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The highly anticipated *Prospective Plantings* report, released Thursday, March 28 by USDA's National Agricultural Statistics Service, showed lower than anticipated crop acres. Acreage of all crops is estimated to be 6.3 million acres lower than in 2023. Corn and soybean acres were each one million acres below USDA's Agricultural Outlook Forum estimates from February, though soybean acres were in line with analysts' pre-report expectations. Markets reacted positively to the news, especially corn where the new-crop December 2024 futures prices rose about 15 cents per bushel following the report release.

While farmers welcome positive news for corn prices, the possibility that acres 'lost' in the March report may be found at planting time and show up in subsequent USDA data releases may portend a forthcoming price drop. To assess the likelihood of this kind of acreage surprise, I review past errors in USDA March acreage estimates for both principal crop acres and combined corn and soybean acres. While USDA typically adjusts planted acreage from its initial March estimates, increases are typically smaller than decreases. The acreage declines in the March report are informative about the quantity of US corn and soybean production in 2024. This news provides ongoing but limited support for prices. Corn and soybean stocks are still expected to grow in 2024/25 marketing year.

What Did the Report Say?

The March 2024 Prospective Plantings report provided estimates of planted acreage for major US crops based on farmer surveys conducted in late February and early March. The report anticipated 313.3 million principal crop acres in 2024. At this level, principal crop acres would be 6.3 million acres lower than the 319.6 million acres in 2023. Since 2014, US principal crop acres have been around 318 million acres, except in years where poor weather has limited planting, increasing 'prevent plant' acres that are not tallied in principal crop acreage. Prior to 2014, principal crop acres were typically higher and often exceeded 320 million acres.

Combined corn and soybean acres are also anticipated to be down. US farmers planting intentions include 90.0 million acres of corn and 86.5 million acres of soybeans. This is a more balanced mix of corn and soybean acres relative to the sharp divergence in plantings seen last year when US farmers planted 94.6 million acres of corn and only 83.6 million acres of soybeans (see: *farmdoc daily*, July 4, 2023). However, both numbers were below earlier projections released by USDA in its February Agricultural Outlook Forum commodity balance sheets which forecast corn at 91.0 million acres and soybeans at 87.5

million acres. Corn acres were also below analysts pre-report expectations which averaged 91.8 million acres. Even post-report, there remains persistent chatter among analysts that US farmers intend to plant more corn than forecast by the USDA.

Why have projected crop acres declined? Partial explanations include i) farmer pessimism about the profitability of crop production in 2024 at current price levels, ii)) poor planting conditions in the long-term drought affected areas of the Southern Great Plains states of Texas, Oklahoma, and Kansas, iii) recent increases in former crop acres enrolled in the Conservation Reserve Program, and iv) acreage lost to solar farms, housing, and other non-agricultural uses. Each rationale may fit better or worse to the overall decline in principal crop acres or the specific reductions in corn and soybean acres. For market outlook, what matters more than a definitive explanation for lower acres is the degree to which USDA data is informative about planting expectations.

Learning from Past Acreage Changes

What is the likelihood that lower acreage in the March Prospective Plantings report returns this year in subsequent estimates? To assess this possibility, I review past changes in principal crop and combined corn and soybean acres relative to the March report figure. These changes indicate how much farmers may change planting decisions at the extensive margin (planting more acres than previously planned) or how much USDA may have erred to the low side in estimating planted acreage. In either case, I contend these past changes are informative about the size and direction of possible changes to planted acreage this year.

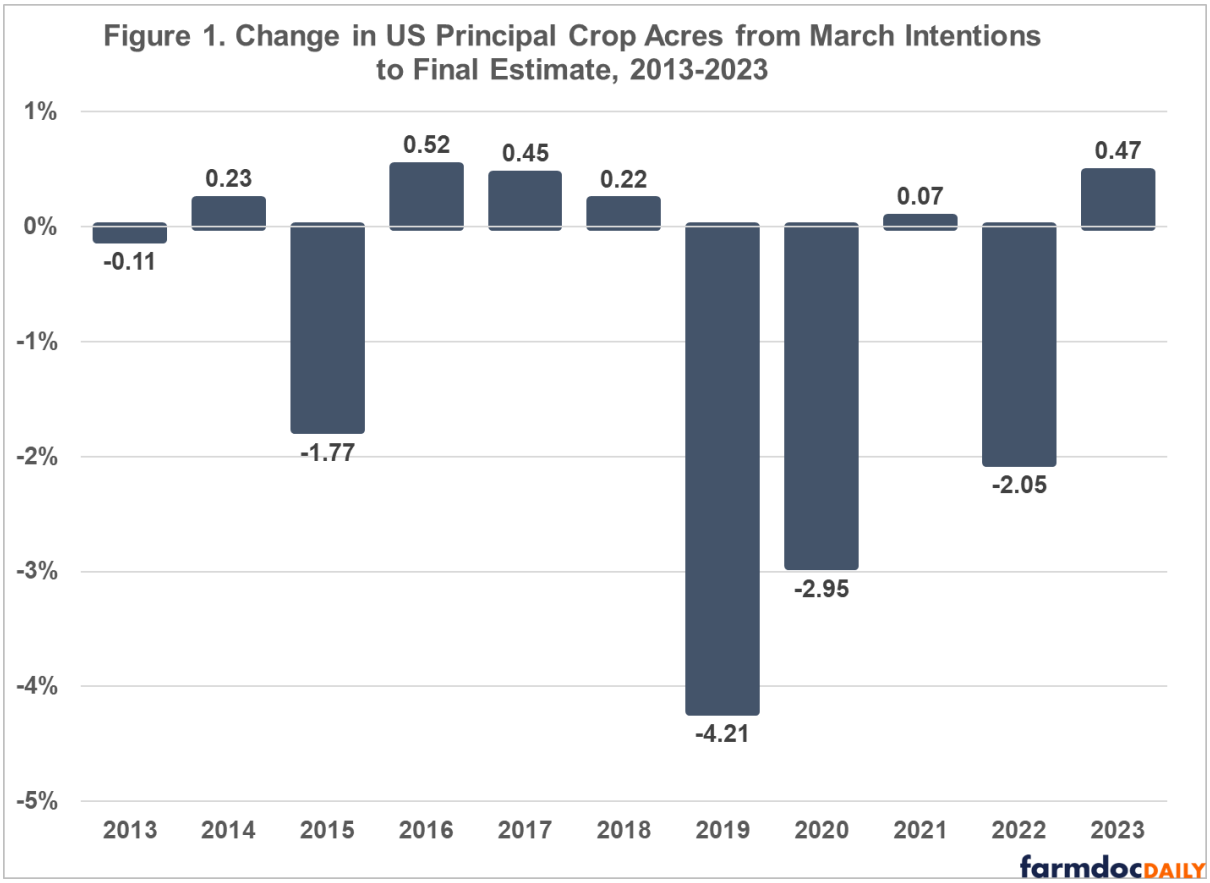
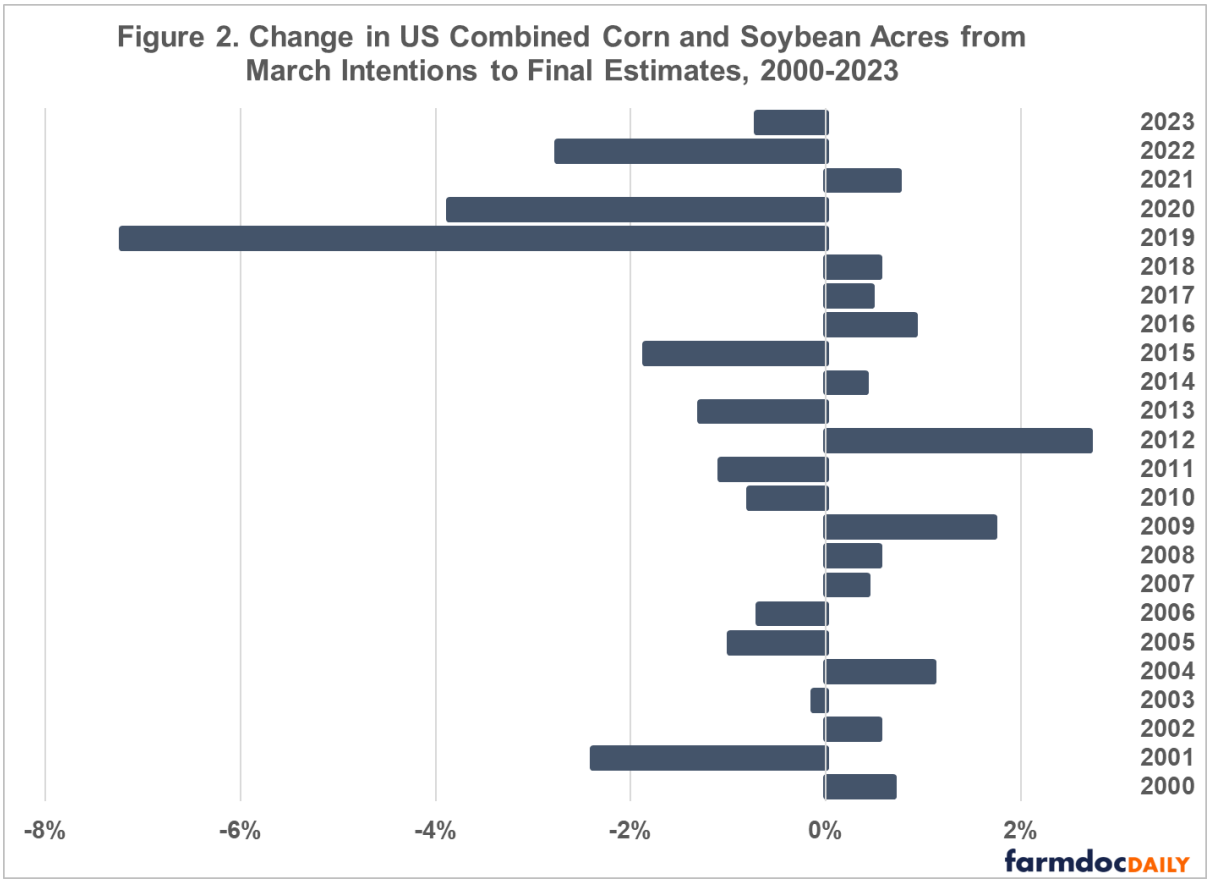


Figure 1 shows changes in principal crop acres between the March report and final estimates since 2013. Changes are asymmetric: negative changes are larger than small changes. Many crop acres may be lost to prevented planting but similar-sized increases relative to intentions do not occur. Increases are about as common as decreases, but the average increase is just one-third of one percent and the largest increases are just over half of one percent. For context, a 0.5% increase in acreage relative to the 2024 March estimate would be just 1.6 million acres which is well below the six million acres 'lost' relative to

principal crop acres in 2023. It should be noted though that the time scale of these data is limited because the Prospective Plantings report has only provided a principal crop acreage estimate since this time.

Figure 2 reviews similar changes in estimated planted acres of corn and soybeans combined relative to pre-planting intentions from the March report. This figure covers a longer period, but the conclusions from principal crop acres above largely still hold. Positive and negative changes are equally likely; corn and soybean combined acres increase in 12 years out of 24. Large increases are rare and have exceeded 1% only three times. A 1% increase in combined corn and soybean acres in 2024 relative to the March estimate of 176.5 million acres would still be less than the two million acres 'lost' relative to earlier Agricultural Outlook Forum estimates and roughly equal to the difference between USDA's estimate and average pre-report analyst's forecasts.



Put simply, acreage is unlikely to rebound to levels anticipated prior to last week's Prospective Plantings report. Large increases in planted acreage estimates for aggregate quantities are relatively rare.

Implications for Supply, Demand, and Price

Combining lower corn and soybean acreage numbers with domestic and export use estimates given by USDA's AOF balance sheet still suggests US corn and soybean markets will be adequately supplied by domestic production in 2024/25. Corn ending stocks for 2024/25 would be over 2.3 billion bushels, a year-over-year increase. Soybean ending stocks would also increase slightly relative to 2023/24 levels. Lower acreage numbers are not now and will not be the precipitating factor for a major rally in crop prices. However, lower acreage does place some support under prices that have otherwise been in slow decline for much of the past six months.

Analysis of past changes in estimated acreage given above suggests price support given by the March Prospective Plantings report is unlikely to be reversed by subsequent estimates. Increases in planted acreage after the March report, both for principal crops and combined corn and soybean acres, are typically small when they are positive. Where a surprise could come is in the mix of crop acres, so market watchers will closely monitor planting and production news leading up to the end-of-June *Acreage* report.

References

Janzen, J. "Corn and Soybean Moving in Opposite Directions." *farmdoc daily* (13):122, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 4, 2023.