



Weekly Farm Economics: Brightened 2020 Income Outlook for Illinois Grain Farms

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In the past month, much has changed in outlook for grain farm income. The U.S. Department of Agriculture (USDA) is projecting relatively high yields for corn and soybean in Illinois. Moreover, price expectations have increased considerably. In addition, payments for the second round of the Coronavirus Food Assistance Program (CFAP-2) have been announced, thereby reducing uncertainty about 2020 Federal payments. Herein, revised 2020 budgets for production on central Illinois high-productivity farmland are presented.

Central Illinois High-Productivity Budgets

Per acre revenues and costs for corn and soybean production in central Illinois on high-productivity farmland are shown in Panel A of Table 1. Results from 2018 and 2019 are summaries of farms enrolled in Illinois Farm Business Farm Management (FBFM). Values for 2020 are projections. Previous 2020 projections were made in a [July 21, 2020, farmdoc daily](#) article. Major changes have occurred for 2020 revenue projections since release of the July 21 article. Projections of gross revenue for corn increased from \$814 per acre in the July 21 version to \$885 in Table 1, an increase of \$71 per acre. Soybean gross revenue increased from \$676 per acre in July 21 version to \$707 per acre in Table 1, an increase of \$31 per acre. Components of revenue increasing as a result of this update include yield, prices, and CFAP payments.

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Table 1. Revenue and Cost Projections for Central Illinois, High-Productivity Cash Rent Farmland, 2018 - 2020P

Panel A	Corn			Soybeans		
	2018	2019	2020P	2018	2019	2020P
Yield per acre	237	208	230	74	64	72
Price per bu	\$3.60	\$3.65	\$3.55	\$9.36	\$8.55	\$9.30
	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre	\$/acre
Crop revenue	\$853	\$759	\$817	\$693	\$547	\$670
ARC/PLC	0	15	20	0	15	20
MFP payments	1	82	0	121	82	0
CFAP payments	0	31	48	0	14	17
Crop insurance proceeds	<u>2</u>	<u>14</u>	<u>0</u>	<u>14</u>	<u>15</u>	<u>0</u>
Gross Revenue	\$856	\$901	\$885	\$828	\$673	\$707
Total Non-Land Costs	\$574	\$606	\$571	\$353	\$372	\$359
Operator and Land Return¹	\$282	\$295	\$314	\$475	\$301	\$348
Cash rent	274	275	275	274	275	275
Farmer Return²	\$8	\$20	\$39	\$201	\$26	\$73

Panel B	2018	2019	2020P
50-50 Corn-Soybean Return	\$/acre	\$/acre	\$/acre
Farmer Return (with MFP & CFAP ad hoc Federal aid)	105	23	56
MFP and CFAP payments	61	105	33
Farmer Return (without MFP & CFAP ad hoc Federal aid)	44	-82	23

¹ Equals gross revenue minus total non-land costs, and represents a return to the land owner and farmer.

² Equals Operator and land return minus cash rent.

Source: Historical values come from Illinois Farm Business Farm Management (FBFM). Summaries can be found in a paper entitled "Revenues and Costs for Illinois Grain Crops" available in the management section of *farmdoc*.

Yields

Although some areas of the country have been impacted by adverse weather, USDA is projecting very good yields for Illinois. Illinois corn yield for 2020 is projected at 203 bushels per acre (see [September 11 Crop Production](#) report). This 2020 yield projection is the second-highest yield in history, with the 2018 yield of 210 bushels per acre being the only yield above 203 bushels per acre. The 2020 corn yield for central Illinois high productivity land is shown in Table 1 at 230 bushels per acre, up from the 215 bushels per acre tend-estimate in the July 21 article.

USDA is projecting Illinois soybean yield at 62 bushels per acre, the second highest yield in history. Only the 2018 state yield of 65 bushels per acre exceeds the 2020 projection. The 2020 soybean yield for central Illinois high productivity land is shown in Table 1 at 72 bushel per acre, up from the July trend projection of 68 bushels per acre.

Prices

Both corn and soybean price outlooks have brightened considerably in the past month, as is illustrated by market year average (MYA) price projections made by the Office of Chief Economist in the World

Agricultural Supply and Demand Estimates (WASDE) report in August and September. The August projection of the 2020 MYA price for corn was \$3.10 per bushel. In the September report, the 2020 MYA price was raised to \$3.50 per bushel, an increase of \$.40 per bushel. The MYA soybean price projection increased from \$8.35 per bushel in August to \$9.25 per bushel in September, an increase of \$.90 per bushel.

Several factors contribute to the 2020 price expectation increases:

- National estimates of yields decreased because of the Derecho Storm in Iowa and overall dry weather in August. The USDA projection of Iowa's corn yield decreased from 202 bushels per acre in August to 191 bushels per acre in September. This decline in Iowa, along with smaller decreases in other states, led to a national yield projection decline from 181.8 bushels per acre in August to 178.5 bushels per acre in September. U.S. soybean yields decreased from 53.3 bushels per acre in August to 51.9 bushels per acre in September.
- Export demand for crops continued to strengthen, with China continuing to purchase grains.

Corn prices were increased from \$3.25 per bushel in July budgets to \$3.55 per bushel in Table 1. Soybean prices were increased from \$8.50 per bushel in July budgets to \$9.30 per bushel in Table 1.

CFAP-2 Payments

Last week, the Administration announced the CFAP-2 program, which will make payments based on 2020 acres planted. For each planted acre, CFAP-2 payments equal:

2020 Trend-Adjusted Actual Production History (TA-APH) yield x an effective payment rate,

if the farm has a crop insurance yield history. Effective payment rates are \$.2320 per bushel for corn, \$.3132 per bushel for soybeans, and \$.3942 per bushel for wheat. Table 1 includes a CFAP-2 payment for 2020 corn of \$48 per acre, equaling an average TA-APH yield of 205 bushels per acre times the \$.2320 effective payment rate, rounded to the nearest dollar. The \$17 payment for 2020 soybeans equals a 55 TA-APH yield estimate times \$.3132 effective payment rate, rounded to the nearest dollar.

Note that there are two CFAP payments for corn in Table 1: a \$31 per acre payment for 2019 and a \$48 per acre payment for 2020. The \$31 per acre payment is for CFAP1, which was associated with price losses for 2019 production although payments were made in 2020 (see *farmdoc daily*, May 22, 2020, for more detail). Overall, CFAP payments total \$79 per acre for corn, with \$31 associated with CFAP-1 and \$48 per acre associated with CFAP-2. Soybeans have \$32 per acre in CFAP payments, with \$14 associated with CFAP-1 and \$17 associated with CFAP-2.

Farmer Returns

The updated budget included in Table 1 shows a cash rent for 2020 of \$275 per acre, the average cash rent for high-productivity farmland in central Illinois and unchanged from the July budget projections. For 2020, farmer returns for cash rented farmland are \$39 per acre for corn and \$73 per acre for soybeans. For a rotation that contains 50% corn and 50% soybeans, the 2020 projected returns are \$56 per acre, as shown in Panel B of Table 1. This 2020 projected return is above the \$23 return for 2019, but below the \$105 return for 2018. Ad hoc programs boosted farm returns to those levels. Without payments from the MFP and CFAP programs, farmer returns on cash rented land would have been \$61 per acre lower in 2018, \$105 per acre lower in 2019, and \$33 per acre lower in 2020, as shown in Table 1, Panel B.

Commentary

Recent increases in price have considerably increased the outlook for farm returns in Illinois, particularly when combined with above-trend yields. Still, Federal aid in the form of CFAP payments are important. In the last three years, ad hoc Federal aid in the form of Market Facilitation (MFP) or CFAP programs have been critical in maintaining income levels.

Note that 2020 projected prices are \$3.55 per bushel for corn and \$9.30 for soybeans. While higher than prices used in July 21 budgets, these prices are not high by historical standards. These higher 2020

projected prices resulted in part because of lower than anticipated yields in the U.S., particularly in Iowa. Yield issues now are required to reach price levels that would have been closer to “normal” in years before 2018.

Above-trend yields in central Illinois contribute to higher incomes. Areas where yields are lower, such as Iowa, will have lower incomes than Illinois without additional disaster aid programs.

The recent changes in outlook illustrate the uncertainties that exist in agriculture. As long as these uncertainties exist, expectations of returns will change through time.

References

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