

## Tillage Data and Recommendations

In our last analysis, strip-till and 1-pass light tillage were the most profitable tillage systems among PCM farmers regardless of soil productivity range. The new 2018 and 2019 data changed these trends. High SPR corn fields that adopted a 2-pass light tillage system had the highest average net return; 1-pass light tillage systems were only a few dollars per acre behind 2-pass light tillage.

Big changes prompt PCM experts to review what could have caused the change, and the weather is certainly one explanation.

Farmers experienced the wettest spring on record in Illinois in 2019. It's possible that ONLY those fields that were the most well-drained and regionally lucky to miss a few rain events would have even allowed for a second tillage pass in 2019. Those same fields would have likely had the most suitable conditions for early planting and early season growth, all pointing toward higher yields that had very little to do with additional tillage passes.

In Illinois in 2018, we had cool early season conditions that could have encouraged farmers to make an extra tillage pass in the spring.

The analysis this year drops strip-till to fourth place in profitability. Our most profitable strip-till fields use the strip-till bar to apply less total N, eliminate one field pass and yield about 18 bushels/acre greater than farmers that do not use the bar to apply liquid fertilizer. The 2019 weather could have impacted the viability of this practice as well.



## TILLAGE APPLICATION DATA 2015-2019

<b>CORN IL, High SPR</b> <b>2015-19 AVG VALUES</b>	NO-TILL	STRIP TILL	1-PASS LIGHT	2-PASS LIGHT	2-PASS MODERATE	2+ TILLAGE PASSES
<i># fields</i>	310	296	710	302	419	46
<i>Yield per acre</i>	209	219	220	224	223	216
<i>Soil Productivity Rating</i>						
<b>GROSS REVENUE</b>	\$750	\$787	\$790	\$804	\$801	\$773
<b>TOTAL DIRECT COSTS*</b>	\$388	\$395	\$382	\$384	\$396	\$422
Field Work	\$0	\$20	\$10	\$22	\$26	\$38
Other power costs**	\$96	\$93	\$96	\$93	\$92	\$97
<b>TOTAL POWER COSTS</b>	\$96	\$113	\$106	\$115	\$118	\$135
<b>OVERHEAD COSTS</b>	\$37	\$37	\$37	\$37	\$37	\$37
<b>TOTAL NON-LAND COSTS</b>	\$521	\$544	\$524	\$536	\$550	\$594
<b>OPERATOR &amp; LAND RETURN</b>	<b>\$229</b>	<b>\$243</b>	<b>\$266</b>	<b>\$269</b>	<b>\$250</b>	<b>\$180</b>

*NoTill=No tillage; 1Pass Light=1 pass w/ low disturbance tillage; 2-Pass Light=2 passes w/ low disturbance tillage; 2-Pass Medium=2 passes (1 low disturbance+1 high disturbance); 2+ Pass=more than 2 tillage passes, any intensity level*