



Notes:

1. Saturated 2015 field conditions provided an ideal environment to test yield response.
2. Zones were divided into corn head passes Over Tile Lines, Next to Tile Lines, and Tile Middles.
3. Soil type Hoyleton (3A – somewhat poorly drained) and Cowden (112 – poorly drained) silt loams.
4. Site existing tile spacing 100-ft. Site desired tile spacing ~25-ft to achieve 3/8" drainage coeff.
5. Crop was harvested with an 8-30 (20-ft) corn head centered on tile spacings. Yield was weighed by pass.
6. Single-year ROI exceeds 30% for this partial systemⁱ relative to baseline conditions (Tile Middles @ 67% field average).
7. Imputed yield from splitting the tile system would increase yield 120% of measured field averageⁱⁱ. Imputed single-year ROI for the combined system is 21%ⁱⁱⁱ. Imputed ROI simply for increased yield vs. the cost to split the system is a conservative 16%.

Summary 1: Installing tile on tight clays is feasible, and requires close (but calculable) tile spacing.

Summary 2: Close tile spacings are affordable and desirable in today's financial, yield, and weather environment.^{iv}

ⁱ Tile System \$1.15/ft @ 435-ft/ac. \$4.00/bu cash price.

ⁱⁱ Statistical calculation. Assumes 'Tile Middle' passes yield the average of 'Over Tile' and 'Next to Tile' passes. Actual yield increases would be expected to exceed the simple statistical average as increased drainage would have decreased overall field saturation and improved the overall yield environment.

ⁱⁱⁱ Tile System @ \$1.15/ft @ 870-ft/ac (50-ft spacing) and \$4.00/bu cash price.

^{iv} For more detail see our white paper on Best Practices for Tile Drainage in South Central Illinois at www.wmsag.com.