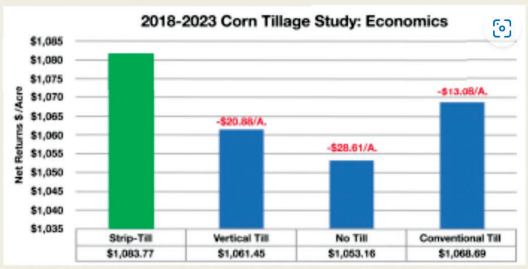
# PRECISION APPLICATION
## STRIP-TILL

**TABLE 4.** Partial budget comparing returns on investment among the treatments at Tim Sieren's in 2018.

| COSTS ($/ac)[a] | NO-TILL | STRIP-TILL |
|---|---|---|
| Strip tillage | -- | 19.20 |
| 90 lb N/ac as anhydrous ammonia with strip-till | -- | 29.64 |
| 79 lb N/ac as UAN(32) with no-till planting | 29.66 | -- |
| 67 lb N/ac as UAN(32) at side-dress | 25.20 | 25.20 |
| Tillage + N fertilizer | 54.86 | 74.04 |
| **RETURNS** | | |
| Corn yield (bu/ac) | 234 | 249 |
| Corn price ($/bu)[b] | 3.41 | 3.41 |
| Yield × Price ($/ac) | 797.94 | 849.09 |
| ROI: Returns - Costs ($/ac) | 743.08 | 775.05 |

[a] Strip tillage cost accessed from 2018 Iowa Farm Custom Rate Survey.[14] N fertilizer costs provided by Sieren.

[b] Corn price is the Iowa average for 2018 accessed from ISU's Ag Decision Maker.[15]




This chart illustrates 2018-2023 data from the PTI Farm. Strip-till over this period provided the highest overall net returns with conventional tillage behind by -$13.08/A. Vertical and no-till resulted in losses of -$20.33 and -$28.61/A.

### 2018-2023 Corn Tillage Study: Economics

Strip-till allows precision tillage on 1/3 of the land while retaining all residue between the strips. This improves moisture infiltration into the strip and reduces rainfall runoff from the field, while providing a warm seedbed for early season planting. Residue between the strips helps retain moisture during dry times of the growing season while suppressing weed growth.

## Why Strip-Till?

- Monteary & Agronomic Gains
  - **Agronomic**
    - Better water infiltration
    - Better nutrient management
    - Better emergence
    - Increased soil health
  - **Monetary**
    - Less passes (eliminate up to 3 passes)
    - Pull back on fertilizer up to 40%
    - Increased soil health
    - Better yield
    - Better management of compaction layers

## Pros & Cons

- Pros
  - Dirt warms up fast
  - Soil structure
  - Seed to soil contact
  - Residue management
  - Seedbed prep
  - Fertilizer placement
  - Water management
  - Less erosion
  - Biological activity
  - Less compaction
- Cons
  - Logistics/management