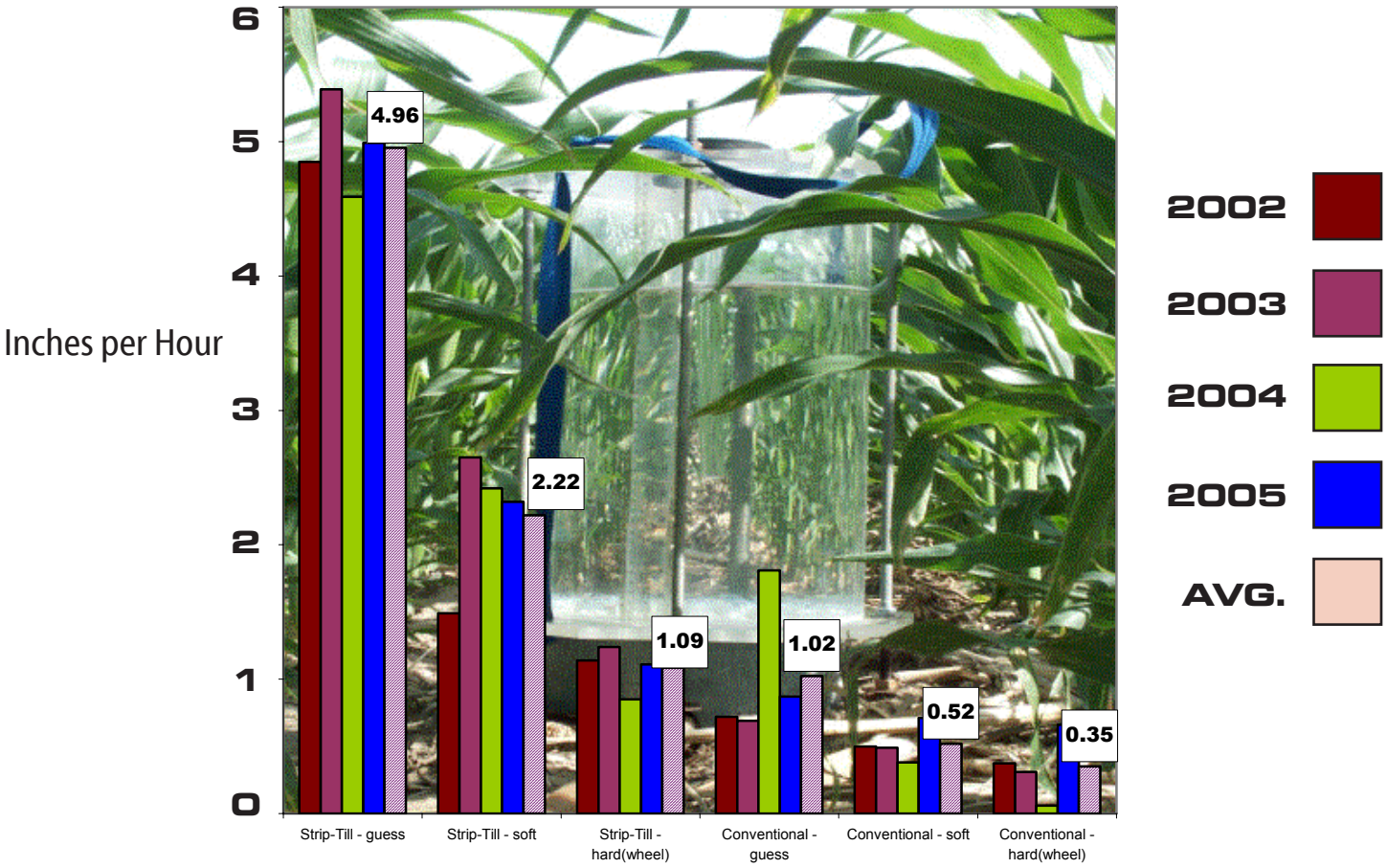
Four Year Study (2002-2005) of Saturated Hydraulic Conductivity on Loam Textured Soils with Cornell Sprinkle Infiltrometer

Irrigation Research Foundation - Yuma, Colorado

Orthman Manufacturing, Monsanto, and IRF Studies Say.....



This study in eastern Colorado is an ongoing study dating from 2002 to the present.

The study consists of an 8 row 30 inch system of continuous corn where we are measuring water conductivity properties where soils are saturated and then water is added at a controlled rate by the Cornell Sprinke Infiltrometer (H van Es, Cornell University) over a designated period of time.

In able to read the graph to the left to a better degree:

- The guess row bars on the graph indicate where a tractor tire has never impacted the soil condition.
- The soft row is the row between the tire rows.
- The hard row in an 8 row system receives measurable impact every season.

The numbers above the candy cane striped bars indicate the average inches per hour water infiltrated into soils.

CONCLUSION: Our study has determined there are more contiguous pores in the strip-tilled areas versus those conventionally tilled and post-plant cultivated (1 cultivation). There is more organic matter, more pore space, thusly allowing water to further penetrate and soak deeper into the soil profile.

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