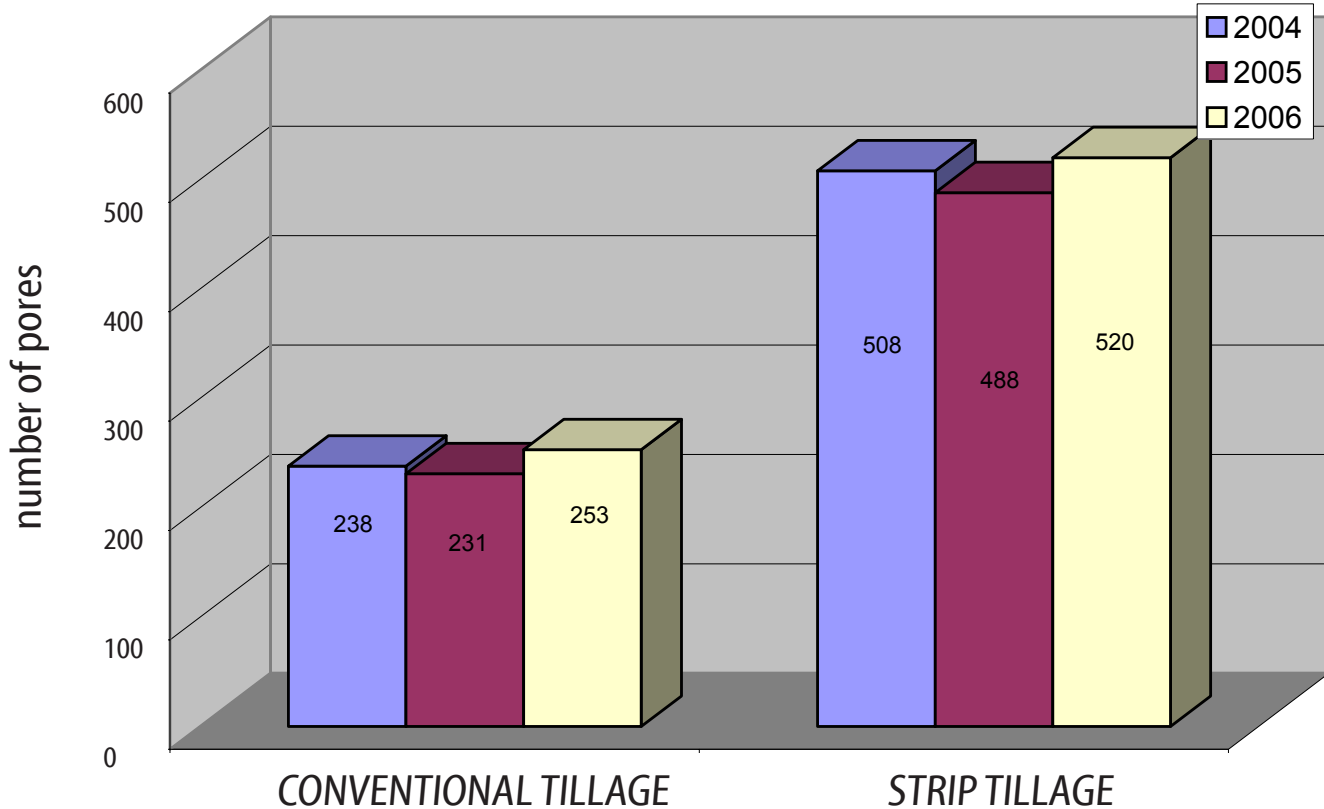


Three Year (2004-2006) Comparison Study of Long-Term Porosity of Strip-Till vs. Conventional Till

Irrigation Research Foundation - Yuma, Colorado

Strip-Till improves soil quality porosity characteristics.....



Measurement of pores <1mm size in 1dm²

Measured in the 2 to 6 inch zone of plow layer.

Samples of 7 decimeter sites (values are averages of the range over 7 sites)

A very important measure of soil quality is porosity, which is an indicator of water's ability to infiltrate and move downward into soil.

We have used a modified version of USDA-Soil Survey methods of counting pores with a 10X hand lens to count pores over a 10cm x 10cm area = 1 decimeter.

These miniature sized pores hold water and gases such as: oxygen and carbon dioxide for root uptake.

The visual aid above offers an indication of the health of the soil and the potential movement of air and water within the soil.

The three years of this study, our observations indicate that the pores in the <1mm size are just over 2 times more in total number in strip-tilled soils compared to the observations indicated by conventional tillage.

The measurements outlined above were taken in mid to late April of each of the illustrated years.