Yes!!! Soil Organic Matter (SOM) Affects Agricultural Productivity (AP)

(*The case for Reduced Irrigation and Carbon Sequestration in NE*)

&

Irrigation and Corn Yields are Increasing

..sustainable?

Little attention has been paid on the role that SOM plays in reducing irrigation and explaining carbon sequestration potentials

Why You Should Care!!

SOM :

- Reduces Need for Irrigation
- Increasing Yields
- Important for Carbon Sequestration

Objective:

Estimate the effect of SOM on AP

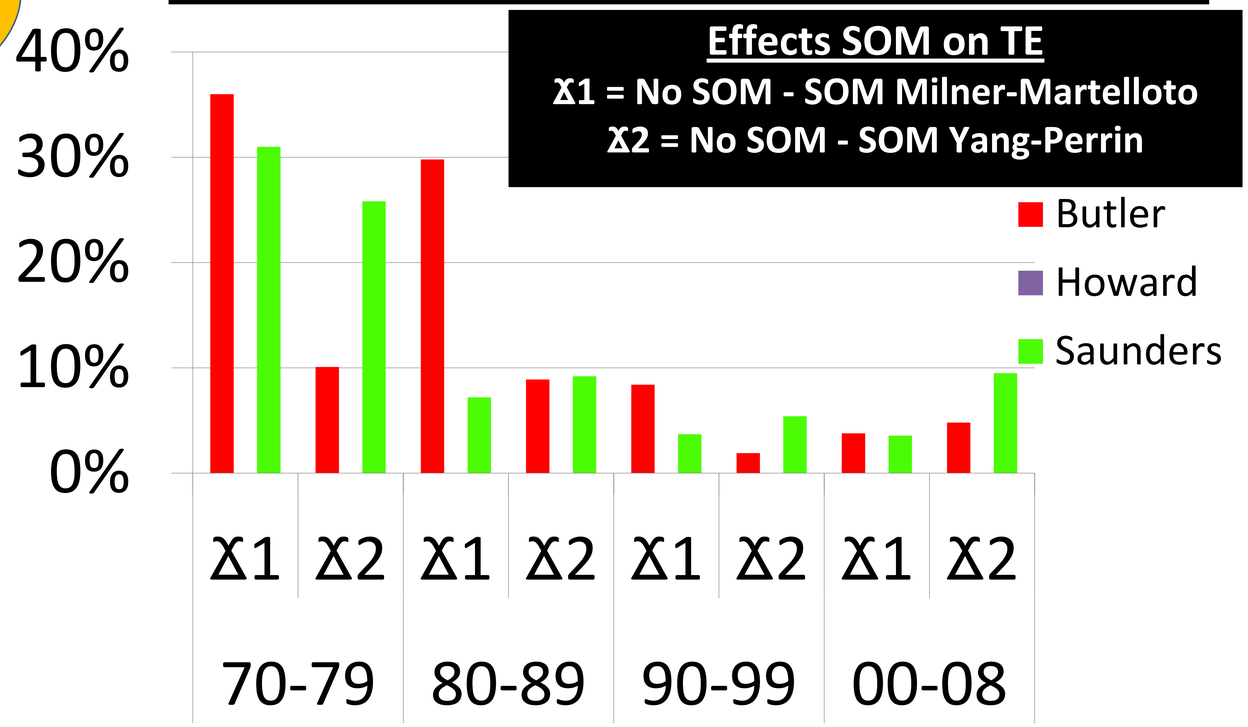
(Technical Efficiency and Total Factor Productivity)

Methods

- **Data Envelopment Analysis**
  - ❖ Technical Efficiency (TE)
  - ❖ Malmquist Index (TFP)

By Kepifri Lakoh

Results: % Increase of TE due to SOM



Conclusion

For all counties considered, the inclusion of SOM in the model increased TE. In some cases unto to 38%. TFP estimates were inconsistent.

Hence policy makers should promote Policies To Increase Soil Organic Matter !

References

NASS Database

Walden, J.B. and Kirkley, J.E., 2007