

WBT and CCT Correlations

The Truth About Stove Testing

Sam Bentson

Aprovecho Research Center

Goal: Accurate Stove Comparison



How Close is Approximation?

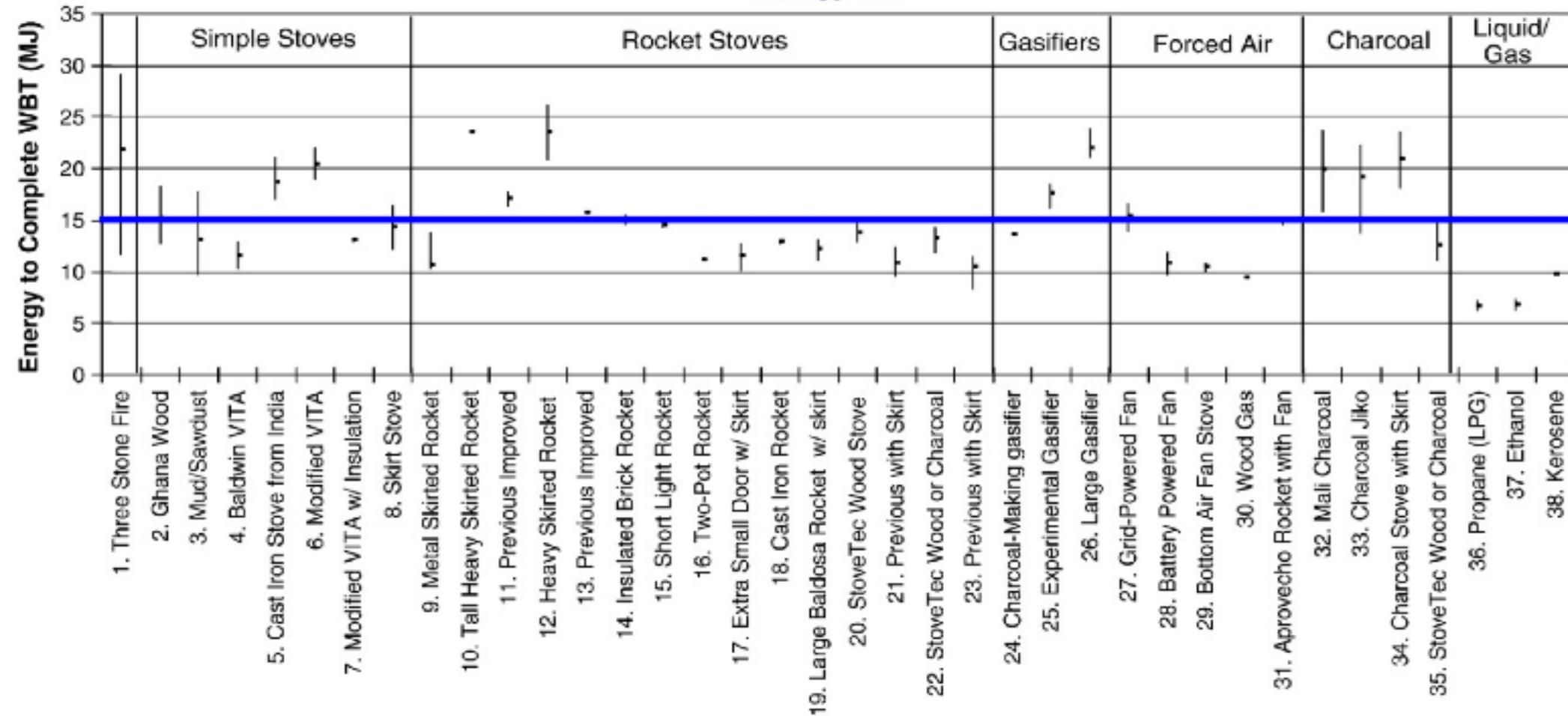


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How Are Benchmarks Adapted to Field?

Energy Use



Which Test?
How Much of
Each?



Beautiful Stove

Correlations From Rwanda

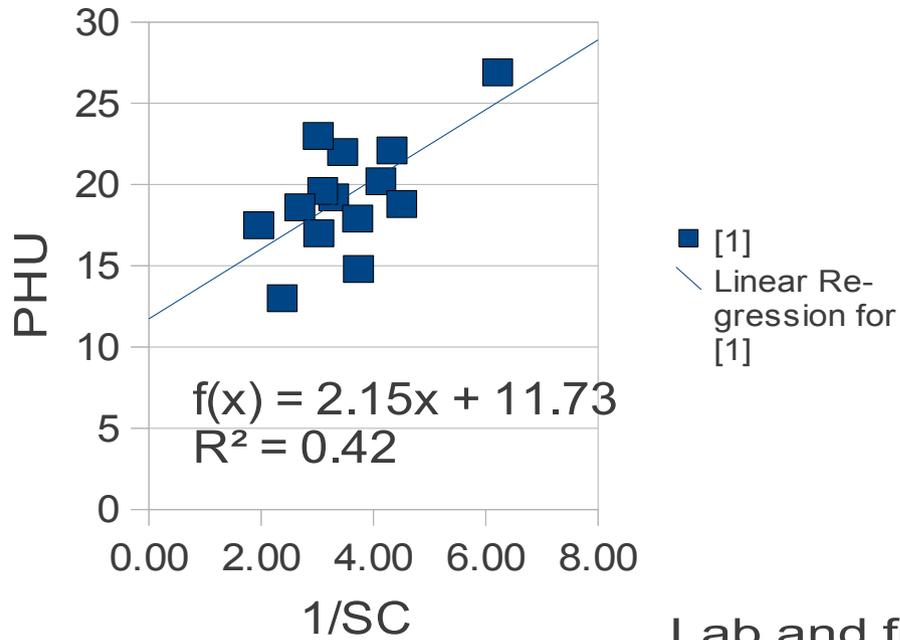
- Validity of CARE stove project
- VERY preliminary correlation—lab underestimates

CCT Comparison of Stove 1 and Stove 2		% difference
Specific fuel consumption	g/kg	62%
Specific CO production	g/kg	49%
Specific CO ₂ production	g/kg	56%
Specific PM production	mg/kg	42%

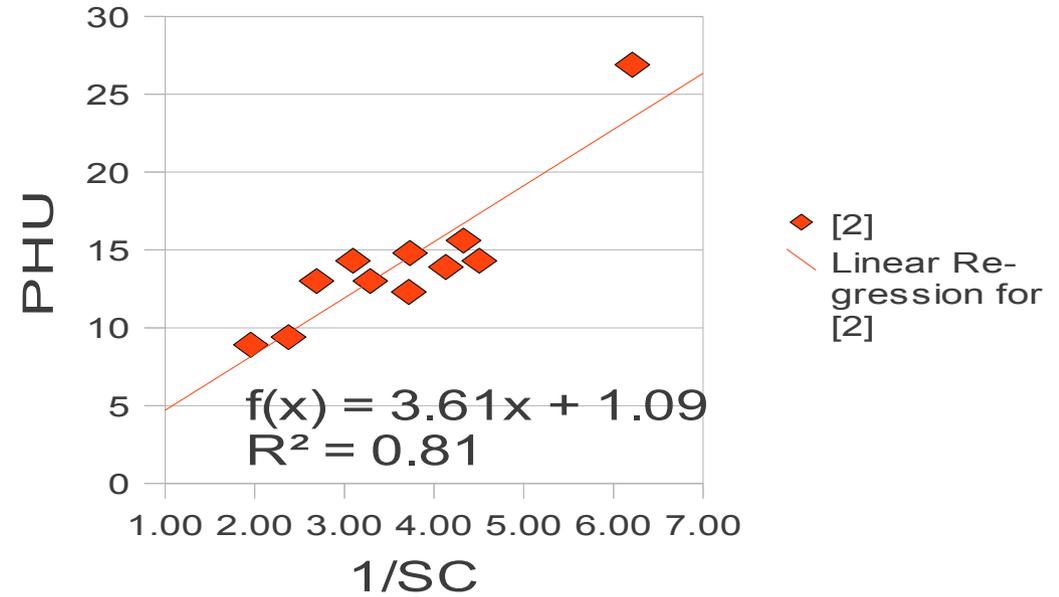
WBT Comparison of Stove 1 and Stove 2		% difference
Specific fuel consumption	g/L	44%
Specific CO production	g/L	38%
Specific CO ₂ production	g/L	43%
Specific PM production	mg/L	38%

Correlations From VITA

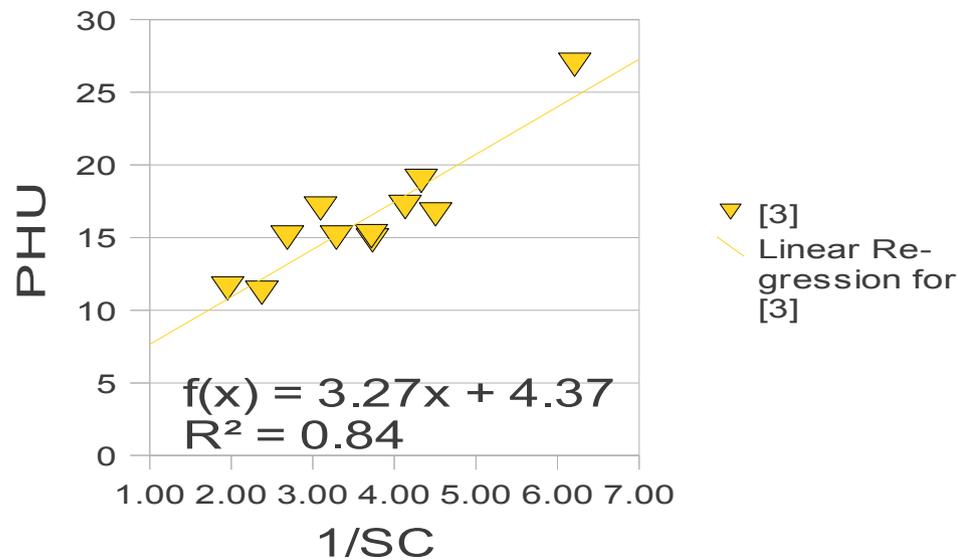
Lab and field correlations



Lab and field correlations

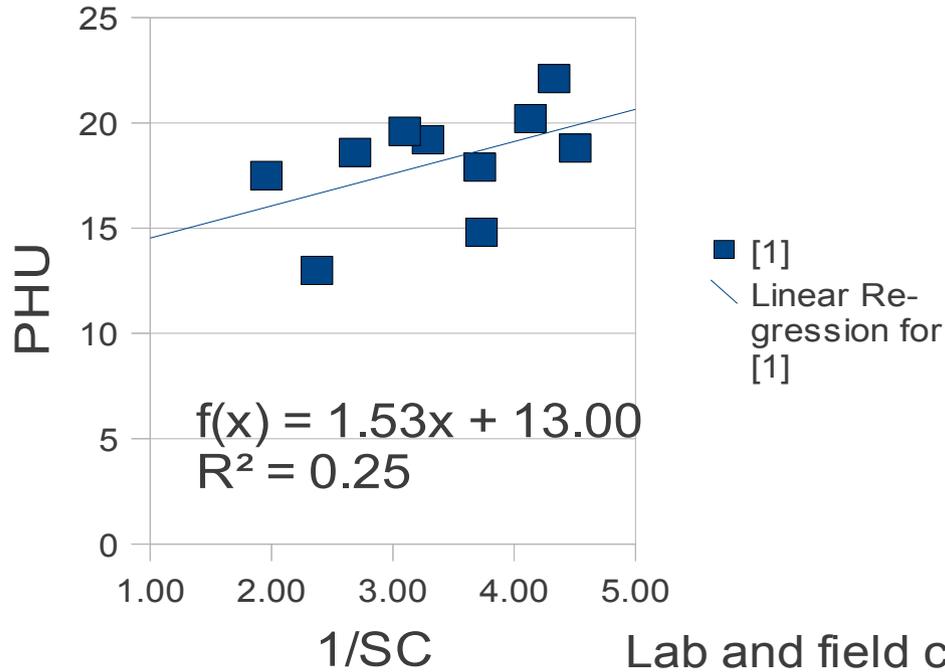


Lab and field correlations

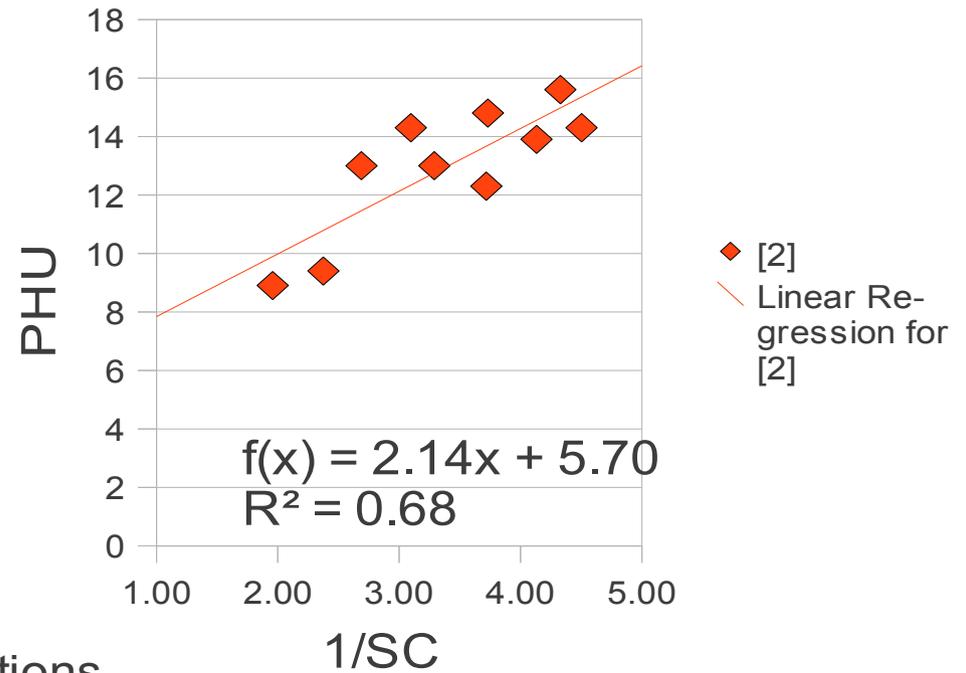


Alternate Correlations From VITA

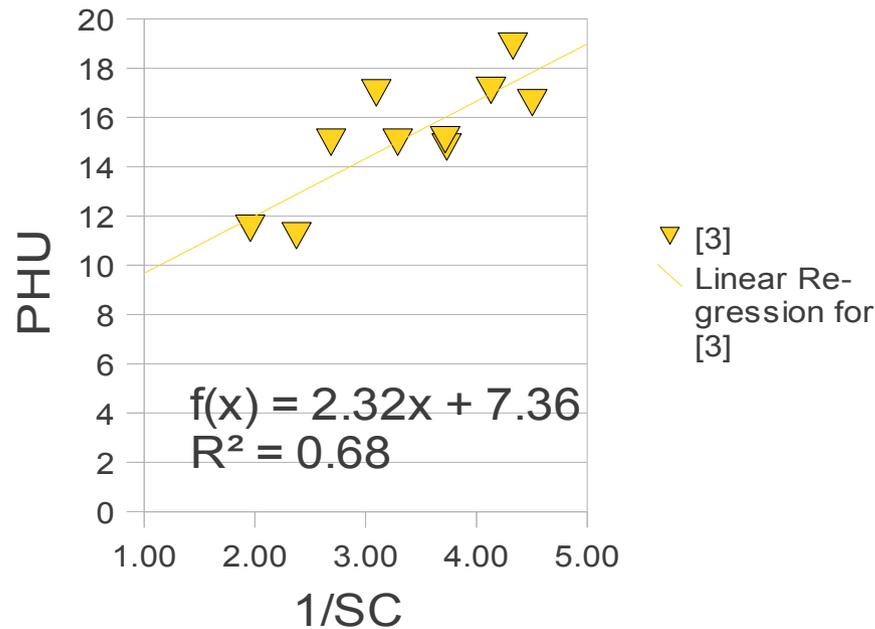
Lab and field correlations



Lab and field correlations

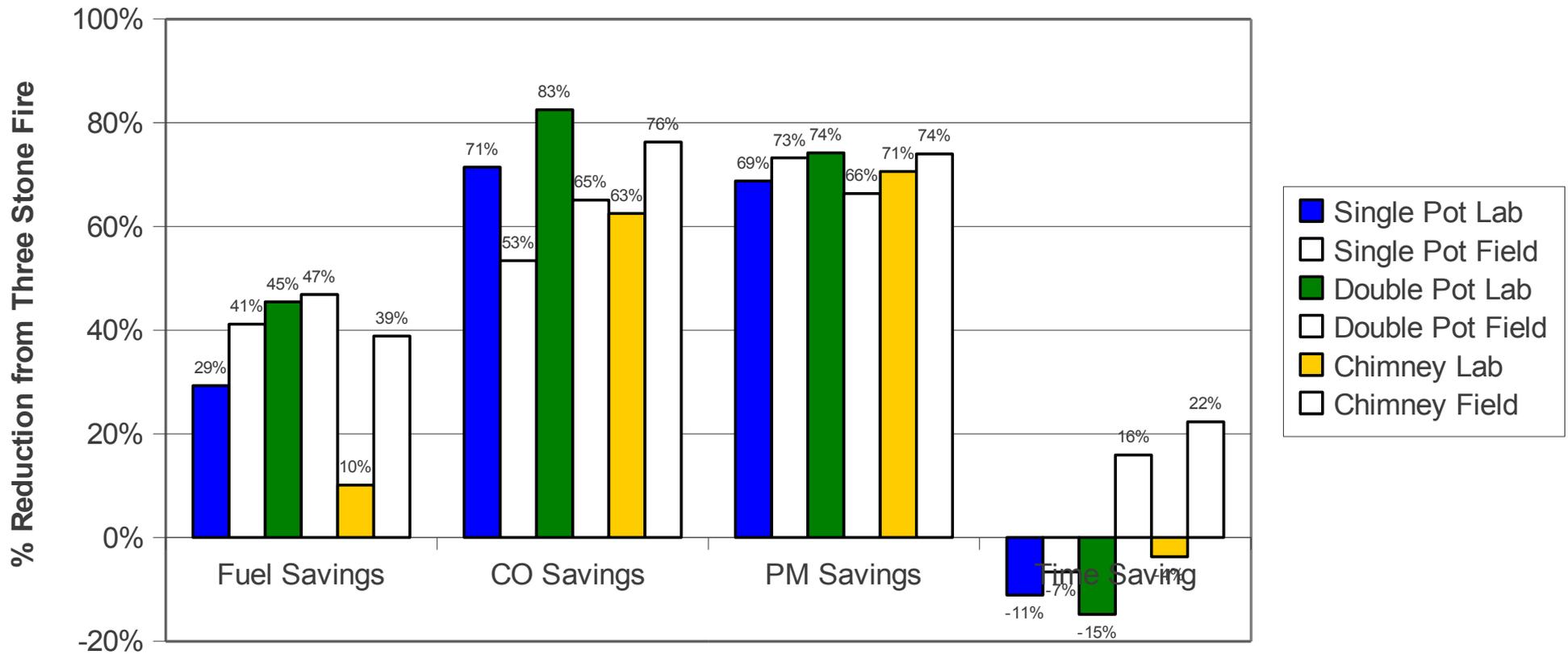


Lab and field correlations



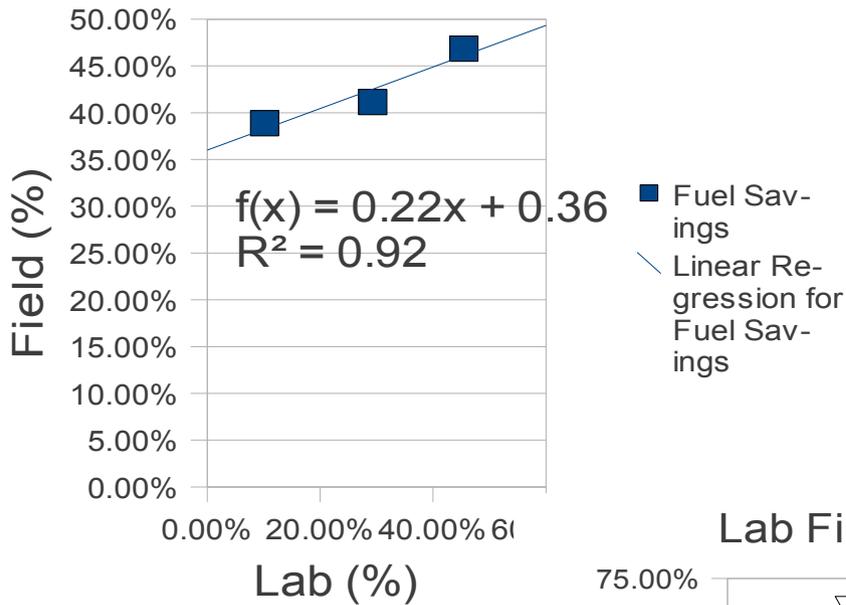
Correlations From Aprovecho

Relative Improvement to Three Stone Fire -- Lab and Field

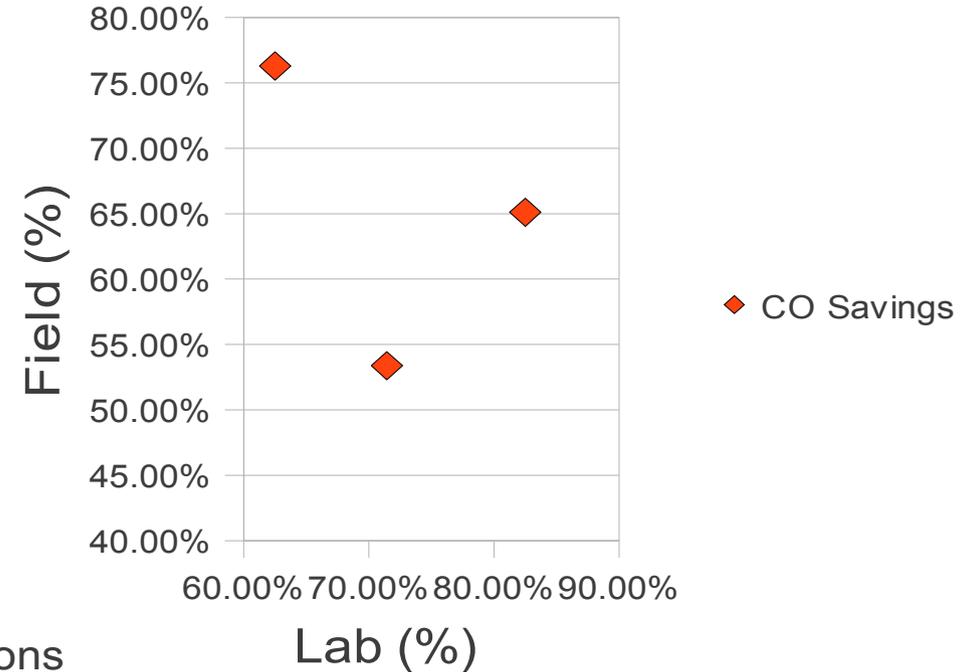


Alternate Correlations From Aprovecho

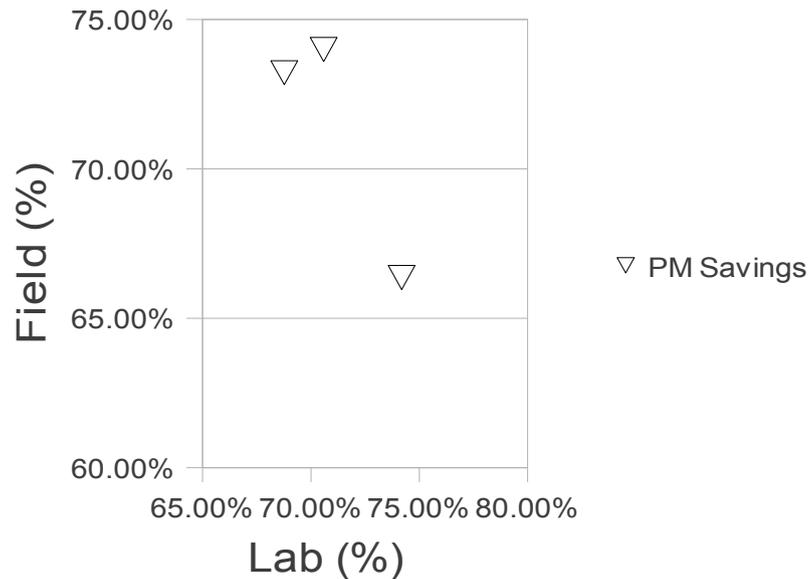
Lab Field Correlations



Lab Field Correlations

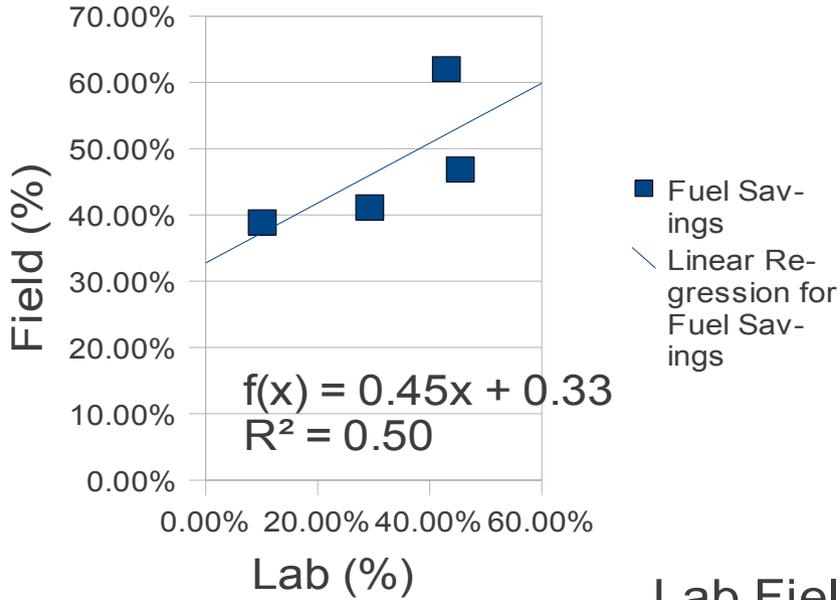


Lab Field Correlations

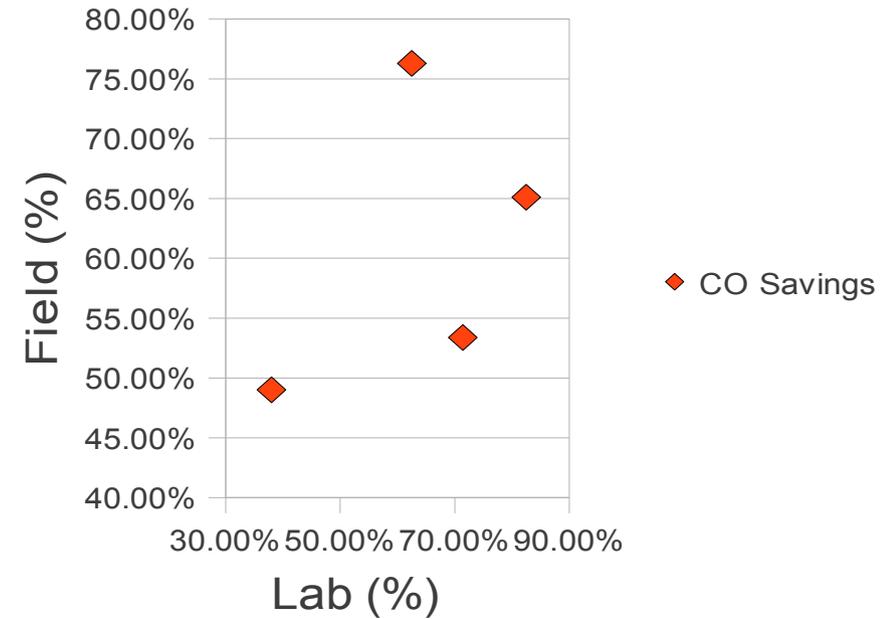


New Correlations From Aprovecho

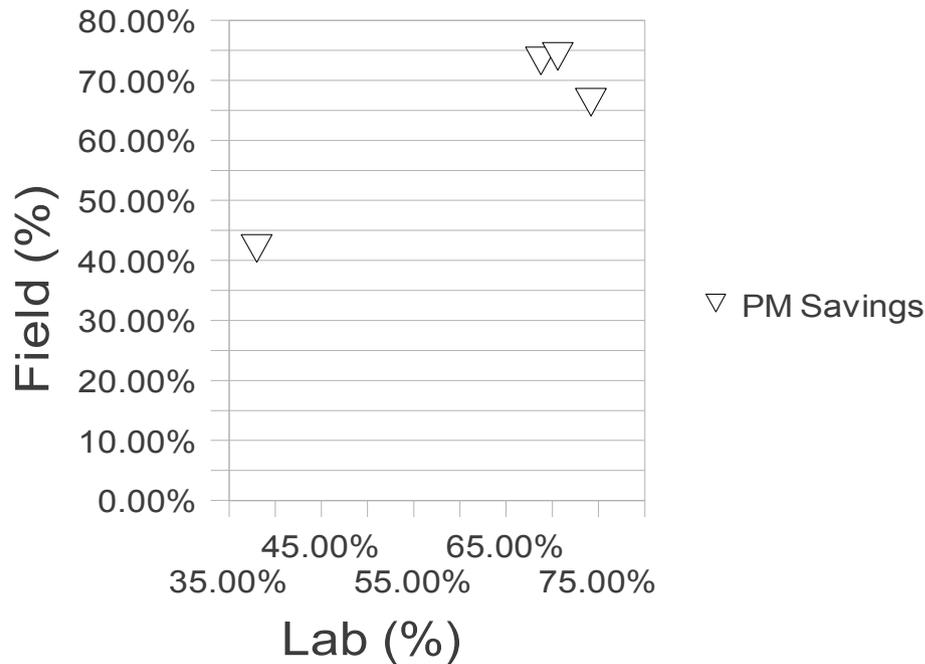
Lab Field Correlations



Lab Field Correlations



Lab Field Correlations



Future Work

- Add more historical data
- Consider other correlations
- Add correlations to KPT

