

Vegetables Production in Drip Irrigation and Conservation Agriculture for the Disadvantaged Women in Siem Reap, Cambodia



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Hypothesis: Conservation agriculture and drip irrigation will decrease labor, increase yield and income, and improve soil health



Conventional Watering



Drip Irrigation



Conservation Agriculture Principles



Site: Five women farmers in Siem Reap with area of 100 m² divided into 4 plots



Tilled



Conservation Agriculture

Treatments: (Randomized Complete Block Design with five replications)

T – Tilled

TD – Tilled with drip irrigation

CA - Conservation agriculture

CAD- Conservation agriculture with drip irrigation

Results:

- *What observations can you infer from photo above?*
- *Yield* - lowest TD and highest CA not significant at 5%
- *Net income* – highest CA, depreciated cost of tank and drip with drip life shorter in tilled systems
- *Labor* – least labor in CAD with drip as key; in CA labor is saved by not tilling but labor is added by addition of mulch and cover crop

Impact: Reduced labor and income of \$350 in 100 m², per capita income is \$944

Yield	T	CA	TD	CAD
Chinese Cabbage (kg)	391	397	362	382

Income (\$) for area of 100 m ²	T	CA	TD	CAD
Gross income (G)	165	164	152	164
Expenses (E)	41	39	59	49
Net Income (G-E)	123	125	92	115

Labor	T	CA	TD	CAD
Time in hours	75	70	54	49

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