



Sustainable production of Maize through conservation Agriculture for Food Security in Mid-altitude of North western Ethiopia



Sustainable Maize grain Yield improvement via conservation Agriculture (CA)

Conservation Agriculture (CA) can be a means to soil improvement and in turn increased crop productivity. The practice was evaluated for maize productivity in the Mid-altitude of Northwestern Ethiopia. Five year On-farm trials were conducted to compare conservation Agriculture (CA) with the current smallholder conventional practice (CP) for productivity of maize. Research results showed that CA improved maize productivity and soil properties.

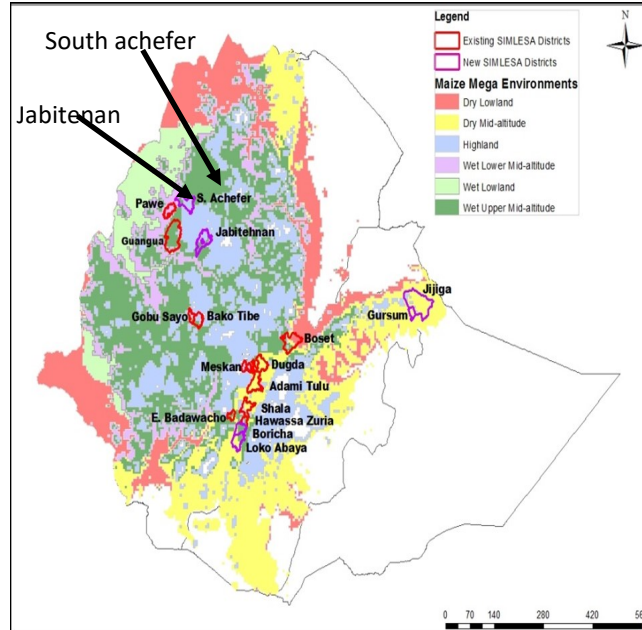


Figure 1: Map of the study area (Jabitenan and South achefer districts)

CA Key Components:

- i) Minimum soil disturbance
- ii) Permanent soil cover
- iii) Diversified crop association
- iv) Herbicide application (optional)

CA cultural practices

Planting: Use hand-hoe, planting stick or one-pass oxen plough with “*maresha*”. Maize planting time should be between 1/2 may and 1/2 June (E.C) depending on onset of rainfall.

Spacing: Mize should be planted in 75 x 25 cm

Fertilizer application: The fertilizer rate recommended for maize produced under conventional practice should be used for CA i.e., 274 kg/ha urea and 300 kg/ha DAP should be applied. All DAP and 1/2 UREA should be applied at planting while the remaining 1/2 UREA should be applied at knee height of maize.

Weed management: Apply glyphosate (round up) at the rate of 2.5–3.0 lit ha⁻¹ depending on weed density and type at 5-7 days before planting , and then manually control the weed as needed.

Contact :
Adet Agricultural Research center, Amhara Agricultural Research Institute, P.O. Box, 08, Bahir Dar, Ethiopia,
Yayeh Bitew,
Phone: +251922608234

