

Local needs for Mechanized Conservation Agriculture (MCA):

The Centre for No-Till Agriculture's (CNTA) experience with the application of CA implements

K. Boa

Theme:

Building a Resilient Future in Africa through Conservation Agriculture and Sustainable Mechanization



Organizers















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The drudgery associated with manual CA











Why MCA?

To enhance the productivity of human labor.

To achieve results well beyond the capacity of human labor.



Machinery requirements for agriculture

Conventional or Conservation

Land preparation

Planting

Fertilizer application

Pest control

Harvesting

Haulage

Processing

Specialized CA machinery requirements

Land preparation

Planting

Harvesting



Land preparation – breaking hard pans

Hand tools



Mechanical Ripper





Land preparation – bush clearing

Manual - Cutlass



Mechanical - roller crimper





Planting

Manual



Mechanical





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Preference of farmers for specific MCA equipment

Ecology	Characteristics	Preferred CA implement
Dry savannah zone	Little or no soil cover at planting Bare crusted fields Prvailence of hard pans	Ripper
Transition zone	Good biomass cover No crusted soils	No-Till planter
Humid forest zone	Heavy biomass cover	Roller crimper



Support for MCA services

CNTA – Training of tractor operators/owners/farmers

Local fabrication - CNTA in collaboration with N. K. Frimpong Ent.

Roller crimpers – 11

No-Till planter parts – closing wheels, residue managers, coulters, ripper shanks

Rippers – 18 (CNTA-7, VVF-1, TECAS-4, CADC-1, Sahel grains-5)

Jab planters - ≥1000 pieces distributed by GASIP





3ACCA Secretariat

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