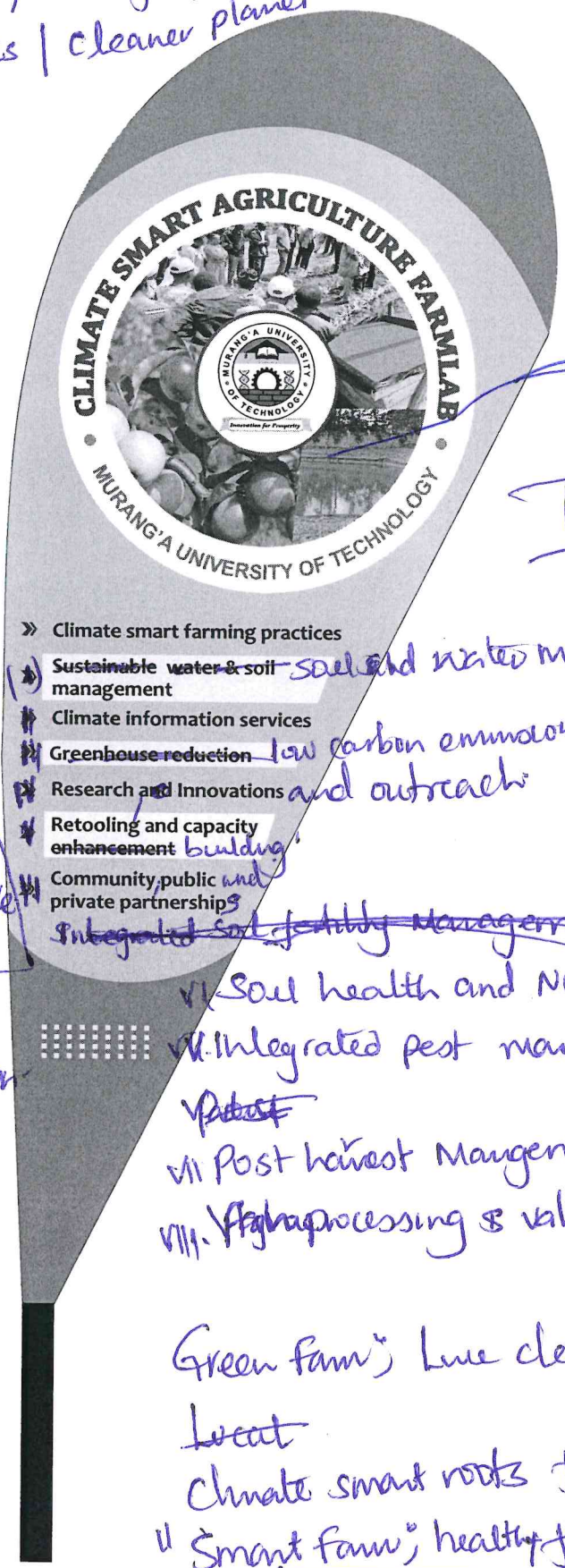
Small farms, Big change
Smart farms, Low footprint
Greener plates | Cleaner planet



CSA
Smart solutions:

farming smarter,
Living green.

Ogether we
grow, together
we green

Smart farming, Sustainable
living.

Farm smart | eat green

smart farming, Sustainable living

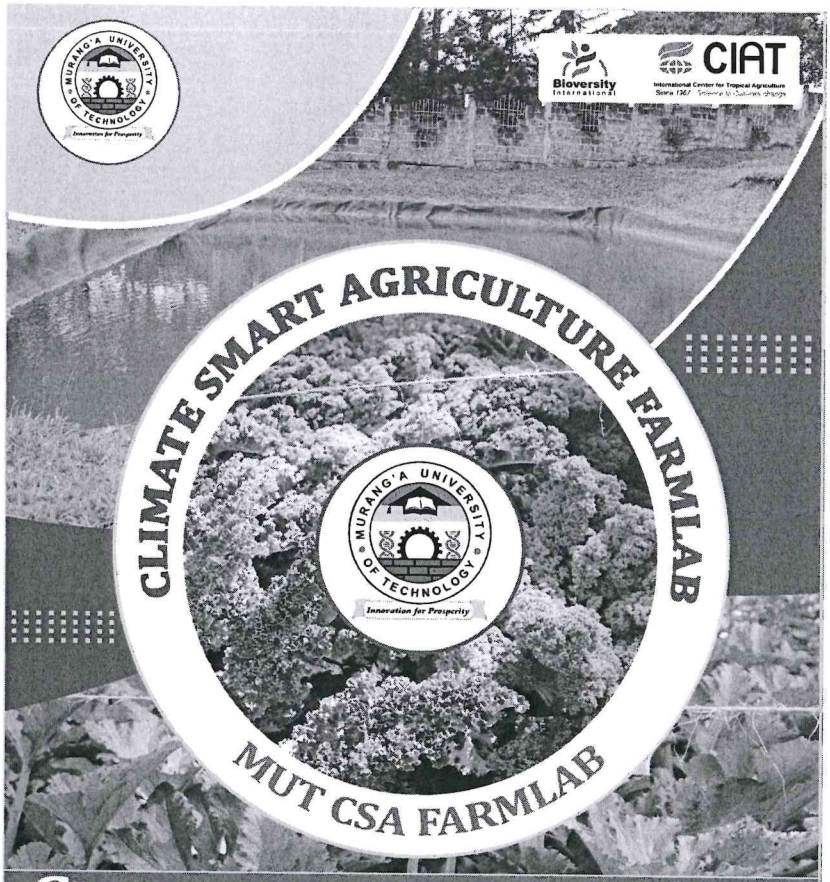
Logo.

Soil and water mngt
low carbon emission
and outreach
building
V. Soil health and Nutrition
VI. Integrated pest management.
~~Pdust~~
VII Post harvest Mangement $
VIII. ~~Agro~~processing & value addition

Green farm; Live clean
~~Live~~ eat
Climate smart roots for Tomorrow
" Smart farm; healthy food "
Green farm; clean envt.

" Green farming, clean envt, healthy living "

Assessment



Climate Smart Agriculture (CSA) is an integrated approach to farming that aims to increase agricultural productivity, enhance resilience to climate change, and reduce greenhouse gas emissions all while ensuring sustainable use of natural resources like water and soil.

Activities at Mut FarmLab

1 Training & Capacity Building in Climate Smart Agriculture:

Offering short courses and post-graduate training in MSc CSA (fully accredited by the Commission of University Education), farmer field schools, and workshops to equip farmers, extension officers, and students with CSA knowledge and skills.

Course offered:

a. Msc. in Climate Smart Agriculture
b. Introduction to climate smart agriculture (CSA)
c. CSA technologies, approaches and practices;
d. Climate finance for agriculture
e. International negotiation skills for agriculture
f. Climate prediction and agrifood systems modeling
g. Applied agroecology

2 Demonstration Plots:

Showcasing innovative farming practices like drought-tolerant crops, conservation tillage, organic farming, and agroforestry.

On-farm trials showcasing climate-smart technologies like agroforestry, intercropping, conservation agriculture, crop rotation, and integrated crop–livestock systems

3 Water Management Innovations:

Including **polythene-covered water harvesting dams**, drip irrigation systems, and moisture-retaining soil practices to conserve water.





4 Research & Innovation:

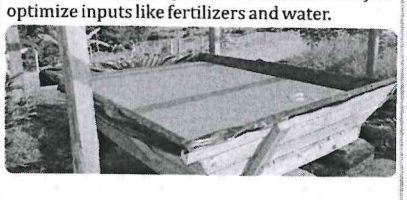
Supporting applied research in areas such as climate-resilient crops, soil health, renewable energy in agriculture, and smart irrigation systems.

5 Sustainable Technologies:

Promoting use of solar-powered irrigation, integrated pest management (IPM), and composting to minimize environmental impact.

Precision Agriculture

Using technology (e.g., sensors, satellite data) to optimize inputs like fertilizers and water.



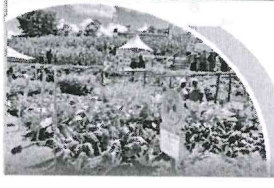
6 Climate Smart Scheduling

This include Smart irrigation scheduling using weather forecasts or soil moisture sensors. Timing irrigation to minimize evaporation (e.g., early morning or evening).

Benefits of CSA

- **Higher yields & food security.**
- **Better farmer resilience to droughts, floods, and pests.**
- **Lower environmental impact (reduced deforestation & emissions).**

Contact Us



Climate Smart Agriculture FarmLab
(CSA FarmLab)
Murang'a University of Technology
Email: csa@mut.ac.ke
P.O. Box 75-10200
Murang'a - Kenya
Location: Mariira Campus



CLIMATE SMART AGRICULTURE FARMLAB (CSA FARMLAB)

Bioversity International



Climate Smart Agriculture (CSA) is an integrated approach to farming that aims to increase agricultural productivity, enhance resilience to climate change, and reduce greenhouse gas emissions all while ensuring sustainable use of natural resources like water and soil.

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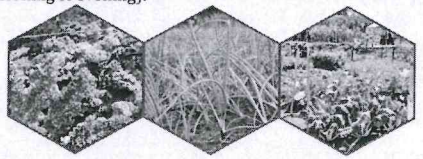
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MUT CSA FARMLAB

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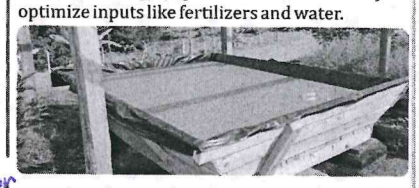
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MURANG'A UNIVERSITY OF TECHNOLOGY

School of

AGRICULTURE AND ENVIRONMENTAL SCIENCES



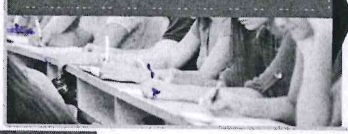
Courses offered:

- Ph.D. in Agricultural Economics
- M.Sc. in Agricultural Economics
- M.Sc. in Agricultural Extension
- M.Sc. in Climate Smart Agriculture
- M.Sc. Applied Agronomy and Technology
- M.Sc. Agroecology
- B.Sc. in Agriculture
- B.Sc. in Agricultural Education and Extension
- B.Sc. in Agribusiness Management and Enterprise Development
- B.Sc. in Agricultural Economics and Rural Development
- Diploma in Agriculture
- Diploma in Agripreneurship
- Diploma in Horticulture
- Diploma in Agricultural Extension





Short courses offered:



i. Introduction to Climate Smart Agriculture (CSA)
ii. ~~CSA technologies, approaches and practices~~
iii. ~~Climate finance for agriculture~~; Artificial Insemination + animal breeding.
iv. International negotiation skills for agriculture and
v. Climate prediction and agrifood systems modeling
vi. Applied Agroecology

Contact Us

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Murang'a - Kenya | +254 721 599 870 | deansaes@mut.ac.ke

www.mut.ac.ke | murang'aUni | murangaofficialfb | murang'aUni

MUT IS ISO 9001: 2015 & ISO/IEC 27001:2013 CERTIFIED

