

Sustainable and low input Crop Production in cereals and legumes systems.

Optimization of Environmental Resources for Improved Crop Performance.

Integrated Pest Management in Crop Production.

Maximization of Land Use and Optimization of Crop Performance under different cropping Systems.

Plant water and nutrient relations and mycorrhizal symbiosis in field crops.

On-farm testing of improved technology packages for crop production.

(with ADP Extension staff)

Evaluation of various packages for the control of Striga in maize, millet, sorghum and cowpea (FAO, SAFGRAD, USAID, KOREA sponsored project).

Evaluation of herbicides for weed control in upland rice.

Evaluation of rice varieties for reaction to Striga.

Seed treatment for the control of parasitic weeds in cowpea.

Evaluation of Trap Crop varieties for *Striga* management in major cereal host crops.

Intensity of Parasitism of *Striga hermonthica* as affected by ecotypic and host sources.

Integration of legume cover crops for enhanced performance of weed control methods in maize production system.

Molecular mechanism of crop adaptation to abiotic stressors, assimilation of inorganic nitrogen ion under abiotic stressors and physiological basis of crop performance under low cost agronomic inputs