

2024 MAJOR HIGHLIGHTS



MUAST
MARONDERA UNIVERSITY
OF AGRICULTURAL SCIENCES AND TECHNOLOGY

November 30, 2024



GRADUATION CEREMONY

Marondera University of Agricultural Sciences and Technology (MUAST) held its 3rd Graduation Ceremony on 27 November 2024 at the Marondera Campus. This milestone event celebrated the university's first cohort of four Doctor of Philosophy (DPhil) graduates. This 3rd Graduation Ceremony also marked the graduation of the first cohort of 34 students from Kushinga Phikelela Agricultural College, an associate of MUAST.

Out of the 103 graduates, there were 71 undergraduates, 27 MSc, 1 MPhil, and 4 DPhils. Notably, two of the DPhil graduates conducted research on the physiology and genetics of two African Indigenous Vegetables: Cleome gynandra (nyevhe) and Amaranthus (mowa/bonongwe).

Professor Justice Nyamangara expressed gratitude to His Excellency and Chancellor for appointing Professor Nomalanga Mpofu-Hamadziripi as the Pro-Vice Chancellor for Academic Affairs, Research, and Administration, and Ms. Sheila Ndlovu as the substantive Librarian.



In his speech, Prof. Nyamangara highlighted that seven research grants had been awarded to various teams within the university. These grants address issues such as Tamarind, greenhouse gas emissions, rebuilding communities affected by Cyclone Idai through psychosocial health support, gender equality and social inclusion, climate change, and sustainable agriculture. All these research projects, spread across the country, aim to tackle the challenges facing our communities, said Prof. Nyamangara.

As part of community engagement, the Muchekeranwa Outgrower Irrigation Scheme has continued to thrive, Prof. Nyamangara noted. He mentioned that the Muchekeranwa Community cultivated 30 hectares (Ha) of wheat and 30Ha of maize last season, ensuring food security within the community.

Prof. Nyamangara also highlighted the increase in crop diversity at the Agro-Industrial Park, including seed-potato and tobacco. He mentioned the university's participation in the Presidential Innovation Fair, where it received two awards: one for the African Indigenous Vegetable programme and another for Manutro Innovation.

In his closing remarks, the Vice Chancellor expressed his gratitude to the Chancellor for the Dr Emmerson Dambudzo Mnangagwa Chancellor's awards, which reflect the Chancellor's passion for education and recognition of academic excellence.

PRESIDENTIAL INNOVATION FAIR



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Award
Presented to
**African Indigenous
Vegetables Institute**
For the best Innovation in Agriculture



The Marondera University of Agricultural Sciences and Technology's (MUAST) African Indigenous Vegetables Institute (AIVI) was awarded 2nd place for the Best Innovation in Agriculture at the Presidential Innovation Fair held on 18 September 2024 at the Harare International Conference Centre in Harare. The Guest of Honour was His Excellency, the President of the Republic of Zimbabwe, Cde. Dr E.D Mnangagwa.

The AIV Institute has the potential to contribute significantly to food security and nutrition by enhancing the availability of nutritious food options in local communities. It also supports Economic Empowerment by helping farmers increase their income through the sale of indigenous vegetables and encourages cultural preservation by promoting the use of traditional vegetables to maintain cultural heritage and culinary diversity.

Presidential Innovation Fair



www.muast.ac.zw

EMPOWERING FARMERS THROUGH TRAINING AND CERTIFICATION



The university hosted a hands-on training session led by Mr. Berin Stockil, aimed at equipping local farmers from Machiki, Muchekera, Masomera, and Nyamakaira with essential skills in sustainable farming. The training was held on 30 September 2024.

The training focused on the Intwasa/Pfumvudza farming method, highlighting four foundational principles of Foundation Farming: timely action, high standards, joyful engagement, and waste reduction. These principles are crucial as Zimbabwe faces increasingly unpredictable weather patterns and pressing food security challenges exacerbated by climate change.

During the training, farmers actively participated in discussions and practical activities, demonstrating their eagerness to adopt innovative agricultural practices. Mr. Stockil emphasized the importance of prioritizing family nutrition over immediate profits, a message that resonated deeply with attendees. As communities grapple with the realities of climate change, such educational initiatives are vital for empowering farmers to implement resilient practices that can sustain both their families and their communities.

The commitment to community resilience did not end there. In the spirit of service, MUAST celebrated the awarding of certificates to 58 community members who completed three impactful training programmes: Farm Machinery Maintenance and Safety, Pfumvudza/Intwasa, and Livelihoods Transformation through Sustainable Farming Technologies. The certificate holders came from various areas, including Machiki, Machangara, Ward 20, Chipesa, Jobhereni, and Masomera, showcasing the university's reach and impact.

Professor J. Nyamangara, the Vice Chancellor of MUAST, addressed the farmers, underscoring the significance of these training programmes in the face of climate change. He acknowledged that traditional farming methods may no longer suffice and encouraged farmers to identify further training needs, reaffirming the university's commitment to community empowerment.

By equipping them with knowledge and practical skills, MUAST fosters a collaborative spirit among organisations like AgriSeeds and the farming community. Together, they are forging a path toward sustainable agriculture, ensuring that farmers can thrive even amid environmental challenges.



MEMORANDUM OF UNDERSTANDING



The establishment of a new partnership between Marondera University of Agricultural Sciences and Technology (MUAST) and Uenergy was formalised on 19 November 2024 at the MUAST CSC campus. This collaboration aims to transform the Agro-Industrial Park into a smart farm, marking a significant evolution in farming and production at MUAST. The partnership was formalized with the signing of a Memorandum of Understanding by MUAST Vice Chancellor, Professor Justice Nyamangara, and Uenergy Vice President, Mr. Ahn. Both MUAST and Uenergy were enthusiastic about the potential of this remarkable partnership.



AGRICULTURAL SHOWS 2024



The Zimbabwe Agricultural Show (ZAS) was held from 26 to 31 August 2024 under the theme, 'Cultivating Prosperity: Growing business, innovating for change, nurturing our future.'

MUAST exhibited various innovative products and also marketed its short courses, undergraduate, and postgraduate degree programmes. The theme of MUAST's exhibition was on promoting traditional food systems through research and value addition. Examples of traditional food plants and value-added products exhibited by MUAST include mowa and nyevhe seeds, amaranth gluten free flour, and tamarind (usika) fruit pulp, jam, and juice. Other products exhibited are blueberry jam and a wheelable knapsack sprayer. Of interest, to all those who visited the MUAST exhibition stand was that the University is producing commercial seeds of mowa and nyevhe and that MUAST registered a company (Marondera University Seeds Company) to specialise on African indigenous Vegetables.

These innovative products, particularly the transformation of amaranth seeds into flour and puffed snacks, were a showstopper. Visitors were curious about the harvesting and processing methods behind these exciting innovations.

In terms of academic programmes, the high school students showed interest in the programmes being offered. Potential post graduate students showed interest in the university's Masters programmes

The presence of the Farmers as well also helped in speaking to the theme which emphasised on nurturing communities as well as sustaining livelihoods.



Dr Moreblessing Chimweta of MUAST and Ms. Eleanor Magwaza of CIMMYT represented Zimbabwe at the International Foundation for Science Alumni Workshop which was held at the Royal Tulip Canaan Hotel, Nairobi, Kenya from October 30-31, 2024. The two were among the few selected participants following their recent participation at the Tropentag Conference in Vienna. The International Foundation for Science wrote, ‘Your recent engagement demonstrated your dedication to advancing scientific research, and we believe your insights will be invaluable to these discussions. We believe your expertise and perspectives will enrich the conversations, and we would be honored to have you with us in Nairobi.’

The workshop aimed to continue the critical discussions around the future of research capacity-building in Africa, building upon the 50-year legacy of IFS operations as it transitions to a new phase to be domiciled in the global South. It focused on how to sustain and expand the impact of the International Foundation for Science network. It was a critical time to explore ways to maintain research support for early-career scientists and establish key partnerships for sustainable funding and operations. Dr Chimweta was the rapporteur for the thematic area on Strategic Partnerships and Networking while Ms Magwaza contributed to the Research Priorities Thematic areas. The representatives from Zimbabwe were tasked to spearhead the establishment of the Zimbabwe IFS Alumni Chapter by the time of Benin Meeting between January and March 2025.

AFRICA YOUTH AGRIBUSSINESS

Paida Margret Moyo, Acting General Manager at the MUAST Agro-Industrial Park (AIP), was honoured to be selected as one of 12 African youth to participate in a rigorous online process focused on youth policy formulation and debate. The aim was to collaborate in identifying key challenges facing young people in agribusiness, such as land access, market linkages, financing, and governance. They convened in Addis Ababa to finalize resolutions and develop a Call to Action. This Call to Action will be presented to high-level dignitaries at the World Without Hunger conference, emphasizing the potential for a hunger-free future through youth-led initiatives and collaborative efforts with governments and stakeholders.



WORLD FOOD FORUM FLAGSHIP (WFF) 14-18 OCTOBER 2024



On 18 October, Ms. Muzamhindo was selected as a panelist to give closing remarks for the forum in the Plenary Room. She emphasized how WFF national chapters have been implementing local initiatives in their communities and countries to transform agrifood systems. She noted that these "networks of networks" have been effective in mobilising and connecting youth on a national platform, enabling them to unify their efforts toward local agrifood transformation. Her key takeaways encouraged a shift in focus towards action, stressing that as youth are now at the forefront of shaping current and future agrifood systems, it is crucial to develop programmes and interventions based on local youth priorities and aspirations. She also advocated for increased funding to accelerate these local action initiatives.

Ms. Jesca Muzamhindo, a lecturer in the Department of Natural Resources Management, Faculty of Earth and Environmental Sciences, attended the World Food Forum Flagship event from 14-18 October in Rome, Italy.

She gave her presentation on 15 October, focusing on "Youth in Food Governance: Power and Participation". In her presentation, she discussed youth inclusion in decision-making, emphasising the growing presence of youth at the policymaking table. However, she also highlighted the lack of equal representation, particularly for rural youth, who are often excluded despite being significantly affected by these policies. Ms. Muzamhindo addressed the barriers to meaningful, democratic, transparent, and inclusive youth participation, as well as the opportunities for enhancing this involvement.

On the same day, she served as a panelist at the World Food Forum (WFF) Thematic Youth Assembly for the Committee on World Food Security (CFS), held in the Ethiopia Room. She provided insights on translating policy recommendations regarding youth engagement and employment into tangible actions at the local level. She also discussed how WFF national chapters can mobilise grassroots efforts to ensure youth are at the forefront of food systems transformation. Using the WFF Zimbabwe National Chapter as an example, she highlighted initiatives such as youth-led agrifood systems clubs (from primary to tertiary levels), mentorship programs (pairing mentees with mentors), climate-resilient projects (crops and livestock), and capacity-building efforts through storytelling, among others. These initiatives contribute to the WFF Tracks, which include Innovation Labs, Culture, Education, and Youth Action.



TRADITIONAL GRAINS CONFERENCE



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TRADITIONAL GRAINS

The Marondera University of Agricultural Sciences and Technology (MUAST) participated in the Traditional Grain Conference held in Bulawayo on 27 September 2024. The event was funded by the Ministry of Land, Agriculture, Fisheries, Water and Rural Development, in partnership with International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Zimbabwe Newspapers (1980) Limited, and several other organizations, including MUAST. The conference's theme was "Unlocking the Potential of Traditional Grains for Food and Feed Security."

The programme was divided into four sessions, each addressing different aspects of traditional grains value chain, from unlocking their potential for food and feed security, research advances in their production, agro-ecological targeted production to policies and regulatory frameworks. The conference was officiated by Professor . Obert Jiri, Permanent Secretary for the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development, who delivered a keynote address on "The Importance of Traditional Grains for Food Security and Sustainability." Professor Jiri emphasised that what farmers should grow should be determined not by what a farmer wants but by the exigencies of that agro-ecological region. Professor Jiri concluded his speech with the note, "Food Security: Everywhere, Everyday."

Professor Justice Nyamangara, the Vice Chancellor of MUAST, gave a keynote presentation opportunities in Zimbabwe's traditional grains sector in the first session. Mr. Ivan Craig, Agricultural and Rural Development Authority (ARDA) Board Chair and MUAST council member, participated in a panel discussion on "Enhancing Climate Resilience, Sustainable Development, Production, and Commercialization of Traditional Grain Varieties in Different Agro-Ecological Regions of Zimbabwe." Dr Esther Masvaya, Director for the Climate Change and Food Security Institute at MUAST, moderated a discussion on "Examining the Policy Landscape and Opportunities for Supportive Regulations."

Key points that resonated throughout the sessions included, emphasizing the importance of farmers education and providing inclusive innovations, especially for younger generations, and mechanizing traditional grain production and processing. The discussions also highlighted the need to put the agro-ecological concept high on the agenda and to make it widely understood particularly by farmers, and to develop comprehensive strategies for refining current policies on traditional grains.

Overall, the conference was highly engaging, and it gave all stakeholders the opportunity to engage, discuss, and it presented collaboration opportunities.

CLEAN UP CAMPAIGN

30 NOVEMBER 24



KEEP THE ENVIROMENT
CLEAN

CLEAN UP CAMPAIGN

Marondera University of Agricultural Sciences and Technology (MUAST) held its monthly clean up campaign which was spearheaded by the Faculty of Earth and Environmental Sciences. The campaign took place at MUAST CSC campus and started at 0900hrs. The campaign saw the members of staff coming together to clean the university campus under the Mantra "Keeping the Environment Clean".





MUAST

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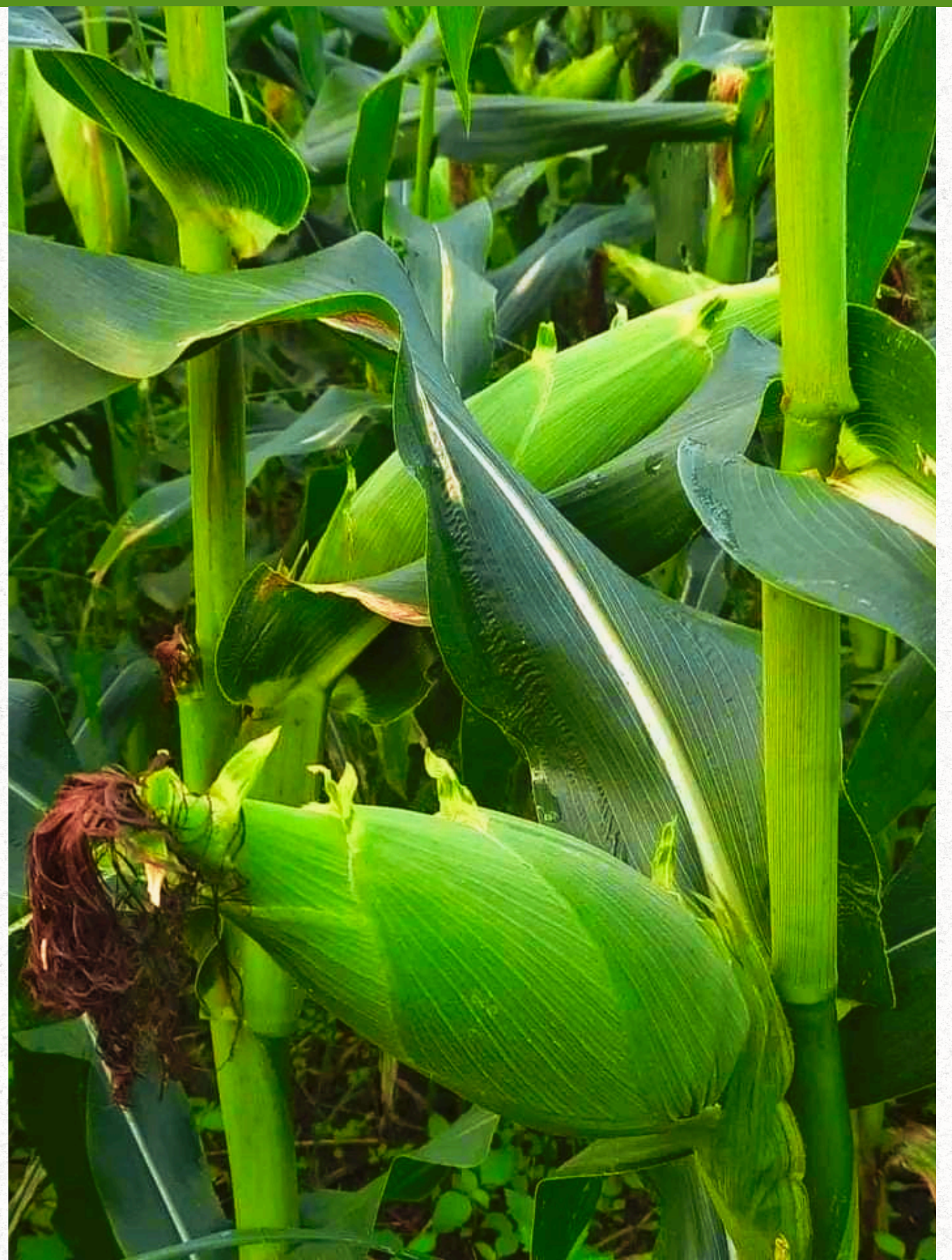
Marondera University of Agricultural Sciences and Technology (MUAST) is making significant strides in agricultural production, focusing on various crops that are essential for food security and economic development. The university's current agricultural activities include the cultivation of wheat, maize, seed potatoes, and commercial potatoes, which together contribute to both research and practical applications in agronomy.



Seed and Commercial Potatoes

The university is also engaged in potato farming, with 10 hectares allocated for seed potato production through a joint venture. Additionally, 2 hectares are devoted to commercial potato cultivation. These efforts are crucial for improving potato varieties and meeting market demands.

Despite the positive strides in agricultural production, MUAST faces significant challenges, particularly in the form of power outages. These outages can disrupt irrigation systems, storage facilities, and overall farm management, leading to potential losses in crop yield and quality. Addressing these challenges is essential for the university to optimize its agricultural output and fulfill its educational mandate.



Maize Production

In line with national food security goals, MUAST plans to plant maize over 60 hectares. Maize is a staple crop in Zimbabwe, and this initiative aims to enhance production efficiency and sustainability.



Wheat Cultivation

The university has dedicated 155 hectares to wheat production, yielding an impressive 230 metric tons. This effort not only supports local food supply but also serves as a research base for improving wheat varieties and farming techniques in Zimbabwe.

LIVESTOCK

30 NOVEMBER 2024

The MUAST goat flock consists of 180 animals, primarily a mixed breed of Boer and Mashona goats. The majority of the herd comprises Boer-Mashona crossbreeds. Genetically, these crossbreeds are advantageous as they combine the high growth rate genes from Boer goats with the disease resistance and high fertility genes of Mashona goats, resulting in high-performing offspring.

The MUAST herd consists of 145 Tuli cattle, a breed known in Southern Africa for its hardiness, fertility, and high-quality beef.

Production Benefits:

- High Fertility*: Short gestation and easy calving.
- Rapid Growth*: Quick weight gain in calves.
- Beef Quality*: Tender and well-marbled meat.
- Milk Production*: Adequate milk for calf growth.

Management for Does

Separation: Mothers giving birth are separated from the main flock and kept in a designated pen.

Pen Design: The pen is designed to provide warmth and comfort for the mothers and their kids.

Common diseases

Diarrhea: Treated using penicillin and Intertrimer.

Lice: Controlled using dipping and Huku dust.



Routine Management

Dipping: Weekly dipping of goats to prevent tick-borne diseases.

Deworming: Goats are dewormed three times per year.

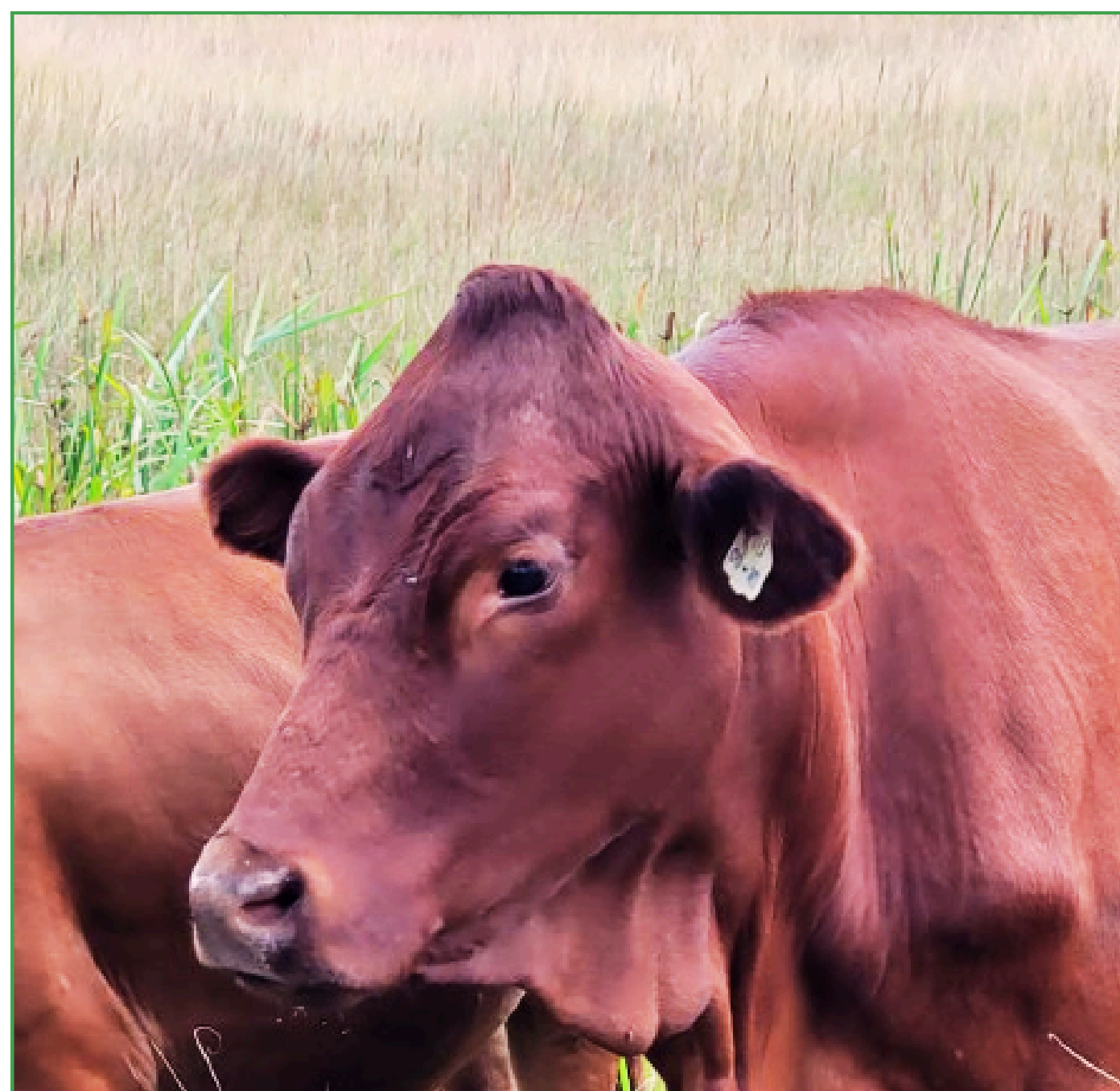
Castration: Unwanted male kids are castrated.

Daily Check-Ups: Daily health checks of the flock are conducted.

Supplements

Goats are provided with salt blocks.

Sugar bean residues are included in their diet. Other supplements as needed.



Management Benefits : Low Maintenance : Minimal veterinary care required. -Docile Nature : Easy to handle. - Versatile Management Performs well in different systems.

Prevention and Management

1. Vaccination: Regular shots against viral diseases.
2. Biosecurity: Keeping a closed herd to prevent disease spread.
3. Parasite Control : Weekly dipping and deworming.
4. Nutrition: Supplementation to maintain body condition.
5. Health Checks: Daily monitoring for abnormalities.

Calf diarrhea is a notable issue, treated with Intertrim and vitamin injections when necessary. Routine management includes dehorning and castration of male calves.



ZUSA GAMES

ZUSA MUTARE

Marondera University of Agricultural Sciences and Technology congratulates the following students on their achievements at the ZUSSA 2024 GAMES .

NOVEMBER 30, 2024



AWARDS

Tatenda Mandeya won a bronze medal in 50m breaststroke. Panashe Meza won a bronze medal in Taekwondo.

Jeremiah Edward won a bronze medal in Taekwondo. The MUA ST Taekwondo team received a bronze medal for Captains and coaches. Overall Taekwondo position: 4th. The Golf team received a medal for new entrants.