



PROMOTING

Knowledge management culture

Role of IP and commercialisation function in NARO



Nasser Mulumba

Intellectual Property Specialist
NAROSEC



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ID: 913 1040 3130

Passcode: KMseries



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Plot 11 - 13 Lugard Avenue



THE ROLE OF IP AND COMMERCIALIZATION FUNCTION IN NARO

By Nasser Mulumba

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The IP and commercialization Unit

- The Unit is responsible for implementing and coordinating the technical aspects and operations of IP management in NARO.
- IP management in NARO is a strategic process focused on overseeing and optimizing the organization's intellectual property assets.
- This involves identifying, protecting, incubation, commercialization, enforcement with keen interest on the commercial route.
- By effectively managing these assets, NARO would foster practical application and economic use of the research results for the public benefit.



Roles and responsibilities of the unit

In performing its function, the unit runs a number of initiatives and activities to manage NARO's IP portfolio along the entire IP value chain. These include:

- i. Conduct IP scouting, one-on-one missions and IP training sessions to capture generated IP and raise awareness among stakeholders.
- ii. Coordinate IP identification, protection and related processes including:
 - conducting patent searches
 - patent drafting
 - industrial designs and trademark development.
- iii. Maintain NARO's IP portfolio by managing annuities and ensuring compliance with legal requirements.
- iv. Coordinate technology commercialization and enforcement activities by:
 - research- industry relations
 - developing commercialization tools and plans
 - conducting market surveillance to assess the performance of NARO's intellectual property in the market,
 - proposing commercialization approaches and modes such as licensing and compliance monitoring.
 - coordinating commercialization negotiations
- v. Coordinate incubation activities including idea and product incubation, as well as operating the incubation centre



Other responsibilities

- Secretariat of the IPMC
- Support the ABS committee
- Support submission of NARO plant varieties to the variety release committee
- Support the EGS Working group
- Supporting MAAIF of PVP Regulations development



Highlight of key achievements

1. Development of key institutional policy frameworks
 - IP Policy and the Guidelines
 - Commercialization policy and the Guidelines
 - Variety submission release guidelines
 - Variety replacement strategy
 - Material acquisition and sharing guidelines (ABS)
 - Access to and licensing of NARO plant varieties
 - NARO incubation plan
2. Establishment and maintenance of NARO IP portfolio (36 IPs under various forms protected)
3. Streamlining access and licensing of NARO Varieties (92 varieties; 31 seed companies; generated over Ugx. 1 billion cumulatively)
4. Research – industry engagements (Movit, NBL, UBL)
5. Developed and established commercialization frameworks for;
 - Seed propagated varieties
 - PPP arrangement for commercialization of NARO facilities
 - Anti-tick vaccine commercialization strategy
6. Streamlining operations and commercialization of Aflatoxin control product and anti-tick vaccine

IP in the context of Agricultural Research

- Agricultural research generates innovations
(new plant varieties, animal vaccines, diagnostic kits, fertilizers, machinery, and digital tools)

These outputs can be protected by different forms of IP:

- **Patents** → technical solutions such as diagnostic kits, machinery
- **Plant Variety Protection (PVP)** → new crop varieties
- **Trademarks** → branding for seed companies, agro-products
- **Trade Secrets** → formulations, processing recipes
- **Industrial Designs** → distinctive packaging, machinery aesthetics
- **Copyright** → training manuals, digital platforms, software





NARO IP PORTFOLIO

IP CATEGORY	NUMBER	DETAILS
PATENTS	1	Ten (10) patent application undergoing substantive: • A trap for black coffee twig borer • Identification of New Domestic Pig Cell for Growth of African Swine Fever Virus Field Strains for Use in Vaccine Production. • Compositions and methods for management of whitefly • Method and kit for detection and diagnosis of African swine fever • Production method for obtaining purified and omega 3 free fatty acid rich edible oil from by-products of Nile perch fish (<i>Lates niloticus</i>) • A method for improving the predictive performance of machine learning models for foot and mouth disease outbreaks. • Chimeric Protective Antigen • Electrochemical biosensor system and method for rapid detection and quantification of Aflatoxin • Method of local manufacture and production of slow release Nitrogen fertilizer using plasma Nitrogen fixation and nanotechnology • Coffee based facial and body scrub. • Electrochemical biosensor system and method for rapid detection and quantification of Aflatoxin



NARO IP PORTFOLIO

IP CATEGORY	NUMBER	Details
Utility Models	7	• Method of preparation for a Recombinant Subolesin (SUB) tick antigens as vaccines for the control of <i>Rhipicephalus appendiculatus</i>, <i>Amblyomma variegatum</i> and <i>Rhipicephalus (Boophilus) decoloratus</i> infestations on hosts. • Process and use of soil material as additive for removing aflatoxin in livestock feeds • Cocoa Fermentation Device • Biomass cook stove • Method and Process of developing Fungal Bio-Acaricide. • Method of extracting resistant starch from green bananas. • Herbal de-wormer formulations for control of livestock helminths.



NARO IP PORTFOLIO

18 Trademarks

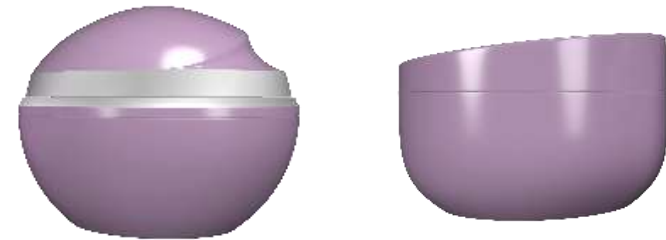


NARO IP PORTFOLIO

Industrial designs



Lotion bottles



Cream jars

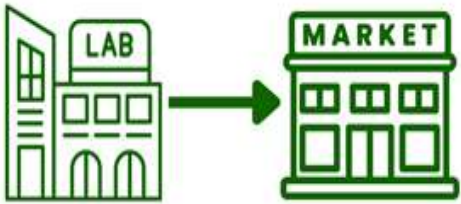


Licensed seed companies

Seed company	Year of license signing
Nalweyo Seed Company (NASECO) Limited	2021
Equator Seeds Limited	2021
Ayella-pe Agro Services Limited	2021
Daylight Agro-tech Limited	2021
Miika Albertine Seeds Limited	2021
Syova Seeds Uganda Limited	2021
Advanta Seed International	2021
Ntungamo Real Foods Limited	2021
Farm Inputs Care Center (FICA) Limited	2021
Gavic Industries Limited	2021
Pearl Seeds Limited	2021
BAK Holdings Company Limited	2021
Growmore Seeds and Chemicals Limited	2023
Premier Seeds Limited	2024
Crown Seeds Limited	2024
Home Harvest Limited	2024
BRAC Social Business Enterprises Uganda Limited	2024
Century Seeds Limited	2024
Golden Bull Uganda Limited	2024
Green Firm Africa	2024
Masindi Seed Company Limited	2024
Okeba Uganda Limited	2024
Rhino Seeds Limited	2024
Savana Seeds Limited	2024
Supa Seeds Africa	2024
Ujaama Seed Company	2025
Sterling seeds	2025
Kabale Irish Potato Agribusiness Ltd	2025
Perlex Enterprise (Uganda) Limited	2025
Tabid Farm Seeds Africa Limited	2025

Why IP is important in Agricultural Research

- Safeguards innovations by protecting years of research investment from being copied unfairly.
- IP gives a commercialization pathway for innovations to move beyond the lab into the market.
- Clear IP rights reduce risk for private sector players, donors, and startups and therefore encourages investments and strategic partnerships.
- Enhances competitiveness by distinguishing local innovations in regional and global markets.
- Licensing frameworks enabled by IP ensure benefits return to research institutions which supports sustainability.



How IP takes Research to the next level

- Research findings become market-ready technologies as industry and private sector become more involved with more incentives for investment.
- Royalties, licensing fees, and spin-off companies provide revenues for reinvestment into research hence sustainability.
- Strong IP systems encourage scientists to think about impact pathways, not just academic output which results in the agricultural innovation ecosystem growth.





Why Agricultural innovators should be concerned about IP

- Proper IP protection ensures inventors and institutions receive recognition and rewards.
- Clear IP policies prevent authorship vs inventorship conflicts and clarify benefit-sharing.
- To align with global trends where International agricultural research centers and donors require IP considerations in projects.
- Prevents counterfeit and unsafe products in the market.





KEY CHALLENGES

- Limited staffing
- Budget constraints for impactful product incubation and investment in commercialization.
- Premature disclosures before IP protection.
- Inefficient foundation seed production for licensed varieties.
- Continuous circumvention of set procedures and policies.



PLANS (Q4)

- Approval of the NARO IP Policy.
- Publish the NARO IP Portfolio.
- Complete the commercialization of feed processing facilities
- Conclude the commercialization of biocontrol of aflatoxin product (Aflasafe).
- Coordinate seed production for seed companies for season 2026 A.
- IP audit for NATO anti-tick vaccine
- Develop the NARO awards framework



Thank You

