



MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES (MAAIF)

P. O. Box 102 Entebbe – UGANDA

MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES UGANDA CLIMATE SMART AGRICULTURAL TRANSFORMATION PROJECT (UCSATP)

GUIDELINES FOR PROVISION OF ARTIFICIAL INSEMINATION (AI) SERVICES IN DAIRY AND BEEF CATTLE UNDER UCSATP E-VOUCHER SYSTEM

1. Background

The Uganda Climate Smart Agricultural Transformation Project (UCSATP) aims to enhance livestock productivity, climate resilience, and farmer incomes through improved breeding technologies. These guidelines establish a standardized operational and quality framework for dairy and beef cattle Artificial Insemination (AI) services provided under the UCSATP e-voucher system.

Under this arrangement, dairy and beef cattle farmers access AI services directly from verified providers via the digital platform without centralized contracting. Payment is made electronically upon confirmed pregnancy, ensuring accountability, transparency, and performance-based remuneration.

2. Objective

To ensure that AI services delivered under UCSATP are of high quality, efficient, results-oriented, and compliant with national breeding standards and regulations set by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).

3. Implementation Approach

- i. AI providers will be verified, accredited, and enlisted on the UCSATP e-voucher platform.
- ii. No individual contracts are signed between the project and AI providers; instead, all transactions occur digitally through the e-system.
- iii. Farmers select their preferred AI provider from the platform.

- iv. Both AI providers and beneficiary farmers will sign a Memorandum of Understanding (MOU) with the project, agreeing to transact only within the e-voucher system.
- v. Private AI providers may utilize AI satellite centers (to be established through NAGRC & DB) where available.

4. Scope of Services

- i. Delivery of AI services for both dairy and beef cattle.
- ii. Proper handling and use of high-quality semen from accredited sources.
- iii. Farmer education and advisory services (heat detection, management of breeding animals, animal nutrition and feeding, pests and diseases prevention and control, housing), record keeping, appropriate farm infrastructure).
- iv. Maintenance of cold chain and biosecurity during semen handling and service delivery.
- v. Real-time digital reporting of insemination and conception results on the platform.

5. Eligible Breeds

Dairy Breeds: Jersey, Ayrshire, Friesian, Bown Swiss and any other recommended dairy cattle breed.

Beef Breeds: Boran, Brahman and Sahiwal.

Special note: For dairy, Jersey cattle procured under UCSATP and their female off springs, only recommended Jersey semen shall be used for AI. For other cattle, the farmer may select recommended semen of their choice. For offsprings accruing from the bull services, the appropriate recommended semen shall be used accordingly.

6. Farmer Eligibility and Responsibilities

- i. Only dairy and beef farmers who have undergone training and demonstration in cattle reproduction, breeding management, nutrition and feeding, health management, prevention and control of pests and diseases among others will access AI services under the e-voucher payment system
- ii. Each dairy farmer shall receive a maximum of 2 (two) successful inseminations per year, totaling to 6 (six) inseminations in three years. The host farmer shall receive a maximum of 5 (five) successful inseminations per year
- iii. Each beef farmer shall receive a maximum of 10 (ten) successful inseminations per year, totaling to 30 (thirty) inseminations in three years.
- iv. Farmers must ensure proper animal health, nutrition, and heat detection before requesting for the service.
- v. In case of confirmed animal death (by competent authority) before pregnancy confirmation, the AI provider shall be paid as per the project terms (MOU)
- vi. If an animal under the e-voucher system other than the project animal is sold or moved by the farmer or their family member before confirmation of conception, the beneficiary farmer will meet the full cost of the AI service provided (Project procured cattle should not be moved or sold unless under special circumstances prescribed by the project).
- vii. The farmers are encouraged to utilize the AI services provided by the project and privately pay for the extra cattle not covered under the e-voucher system as per the AI service-provider terms.

7. AI Service Provider Responsibilities

- i. Receiving and recording service requests from eligible beneficiaries
- ii. Preparing farmers to receive AI services
- iii. Identifying suitable cattle for AI
- iv. Conducting AI on suitable animals
- v. Creating and maintaining both on-farm and personal AI services and associated records.
- vi. Real time reporting to responsible centres on all AI and other reproduction procedures performed/happening on the target dairy animals. The service provider shall be required also to provide records and reports regarding other parameters that influence conception including general reproduction, health and welfare of the animals.
- vii. Report on the movement/missing dairy cattle previously served under the project arrangement (e-voucher system).
- viii. Ensuring the acknowledgement of payment for successful AI services

8. Payment Mechanism/guiding procedure

- AI service providers will be paid through the UCSATP e-voucher platform upon verified and confirmed conception.
- The procedure includes:
 - i. Farmer requests AI service via the e-platform.
 - ii. Provider performs service and records all details (animal ID, breed, details of semen, date) in the farmer's register (herd record file)
 - iii. Farmer digitally confirms service delivery.
 - iv. Pregnancy Diagnosis (PD) is conducted after 30–45 days using appropriate PD kits.
 - v. Conception is confirmed by the officer authorized by a competent authority; the e-system then triggers payment as below;
 - vi. The service provider initiates redemption and the farmer/farmer representative confirms and payment is effected

9. Suggested Payment Structure

Payments are result-based, made upon verified conception.

Semen Type	Animal Type	Indicative Cost per Successful Conception (UGX)	Cost Includes
Non-Sexed Semen	Dairy Cattle	UGXXX	Semen cost, service charge, technician fee, transport, consumables
Non-Sexed Semen	Beef Cattle	UGX XXX	Same as above

Sexed Semen	Dairy Cattle	UGX XXX	Same as above
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Artificial Insemination providers are encouraged to suggest other AI product packages.

10. Technical and Operational Requirements

Item	Specification / Requirement
Registration	All AI providers must be accredited by MAAIF and enrolled on the UCSATP e-platform.
Organizational Status	Only accredited AI companies, associations, or cooperatives with registered technicians will be enlisted.
Accessibility	Providers must operate within the districts they serve and be easily accessible to farmers.
Semen Source	Must come from certified local, national or international breeding centers.
Genetic Purity	Recommended purebred semen with traceable sire-dam records.
Semen Handling	Semen shall be stored and transported in good quality and appropriate liquid nitrogen tanks at -196°C Appropriate field semen flasks shall be used to transport the semen straws. The liquid nitrogen shall always be maintained at the appropriate level for both tanks and semen flasks. Integrity of the semen before introduction into the animal shall be ensured through appropriate semen preparation and handling practices
Technician Verification	Only certified AI technicians will be used to carry out insemination.
Equipment	The AI and associated equipment shall be of appropriate standards and conditions for use as prescribed and verified by a competent authority,
Ear Tagging	MAAIF shall facilitate acquisition and application of appropriate ear tags on all identified animals. The tagged animals shall be entered into the LITS system.
Record Keeping	All inseminations and PDs must be recorded digitally in real time.
Hormonal treatment	Hormonal treatment before and after artificial insemination may be advised only for animals with confirmed reproductive challenges.

11. Quality Assurance and Control

- MAAIF shall ensure quality assurance processes, including importation of AI inputs.
- Minimum semen quality: genetic purity; Predicted transmitting ability (PTA) of Milk ≥ 1000 for dairy semen.
- All semen, tools, and consumables must comply with recommended biosafety procedures.

- An officer from a competent authority will verify conception results using appropriate Pregnancy diagnosis kits.
- Field monitoring and performance audits shall be undertaken by project DLGs and UCSATP staff technical teams.
- Non-performing or non-compliant providers may be suspended basing on AI service standards as prescribed by the project in the MOU

12. Reporting and Monitoring

- AI services, PD results, and farmer confirmations shall be uploaded digitally.
- Monthly and quarterly reports will be auto-generated to track performance and conception rates.
- Joint reviews involving MAAIF, DLGs, and project teams will assess performance , make adjustments to ensure continuous improvement.

13. Institutional Roles and Responsibilities

Actor	Role
Farmers (refer to 6)	Observe and detect heat, request AI service, confirm service delivery and receive conception results, ensure proper animal management, redeem payments following successful service.
AI Providers (refer to 7)	Deliver AI services professionally, support animal identification and recording, provide AI farmer education and advisory services, maintain semen integrity, and submit accurate records.
District Veterinary Officers (DVOs)	Verify PD results, monitor and supervise AI provider performance, and oversee quality compliance. Oversee farmer training by extension officers, quality assure farmer education materials at LG level,
MAAIF	Accredit AI providers, guide quality control, oversee input importation, provide technical back-up, regular monitoring and supervision of DLGs and providers, recommend and link with competent authorities for support services in the AI chain, second staff to undertake pregnancy confirmation, screen animals for infectious and reproductive diseases, undertake disease prevention and control measures, train and supervise providers including regulation and ethics.
UCSATP Management	Manage e-platform, approve provider enlistment, ensure payments, and coordinate reviews.

Private Sector/NAGRC&BB	Support semen supply, training, and use of satellite centers for service delivery, provide AI services, educate and advise farmers, .
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14. Duration and Review

These guidelines will remain valid throughout the UCSATP implementation period and may be reviewed regularly or upon recommendation by MAAIF or the Project Management Unit (PMU) to reflect evolving field realities and technological advances.