

PHILIPPINE CARABAO CENTER



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FOREWORD

The development in agriculture in the recent years has seen the declining role of draft carabaos, more particularly in the intensively farmed, irrigated areas and an increasing trend in farm mechanization. But while this substitution takes place in some specific farming communities, the role of draft carabaos in the rain-fed and hilly agricultural land has not diminished. In fact, the need for draft carabaos may remain high in irrigated areas for some specific farm activities for many years to come.

In the light of the need to improve productivity of the carabaos not only in terms of draft but more importantly for milk and meat to increase income, nutrition, and the general well-being of farmers, the implementation of the national carabao development program becomes an important component of the overall national strategies. This is essentially so because of the need to harness the existing huge resources of about 3.0 million carabaos against the background of the country's 99% import dependence on milk and dairy products and about 50% import dependence on carabeef.

For its part, the Philippine Carabao Center (PCC) will continue its strong resolve of extending necessary services to the farmers, the local government units and other organizations that play important part in the faster development of the Philippine carabao industry.

This publication is designed to guide the carabao industry stakeholders and the public who are interested on the services of PCC. Detailed procedures on how to avail of each service are provided in the succeeding pages.

It is our hope that the industry stakeholders benefit from this piece of publication.

ARNEL N. DEL BARRIO

Executive Director III

QUALITY POLICY

The Philippine Carabao Center aims to be a premiere research and development institution for the sustainable growth of the livestock industry.

In order to achieve this, we, at PCC, are dedicated to provide quality products and services that address customers' needs consistent with statutory, regulatory and other requirements, and the International Standards; and committed to continuously improve the effectiveness of our integrated management systems, products and services, processes, people, and workplace by ensuring safety of our workers; and protection of the environment.

SUMMARY

The Philippine Carabao Center, an attached agency of the Department of Agriculture created by virtue of Republic Act 7307, is mandated to conserve, propagate and promote the carabao as a source of milk, meat, draft power and hide to help achieve better nutrition, higher levels of income and improved general well-being of the rural farming families.

The PCC mandate is pursued through the implementation of the following major services:

- Artificial Insemination
- · Bull Loan Program
- Frozen Buffalo Semen Distribution
- · Provision of Superior Breeding Animals
- Training of Technicians and Farmers
- Technical Assistance and Extension
 - a) Animal Reproduction
 - b) Animal Nutrition
 - c) Animal Health
 - d) Forage Production and Improved Feeding System
 - e) Cooperative Development
 - f) Dairy Production and Processing
- Analysis of milk samples
- Nutrition Laboratory Services
- Biosafety and Environment Laboratory Services
- Information and Library
- Visitors' Assistance
- Marketing Assistance

ARTIFICIAL INSEMINATION



Brief Description

Artificial insemination (AI) is one of the agency's banner services rendered nationwide in villages by trained private village-based AI technicians (VBAITs) as well as technicians of local government units (LGUs), DA-Regional Field Offices (DA-RFO) and PCC regional centers.

Al is a reproductive tool used to produce animals with better productivity for milk and meat, without disregard for draft power through harnessing superior genetic materials of dairy buffalo breed. The strategy is to cross the native swamp buffaloes with the dairy breed following a sustained backcrossing to at least four generations to produce animals with milk and meat producing potentials equivalent to the purebred dairy parents.

Service Standard

The PCC trains VBAITs to provide AI services in the community with a fee, which is based on the existing price acceptable in the locality (ranges from Php300-Php1,000). In places, where there is no trained VBAIT or LGU AI technician, the conduct of AI in the villages is usually based on the schedules agreed upon during the annual planning activities of PCC and the LGUs. However, there are cases when requests outside of the annual plan come in. For those coming from the LGUs, processing of request is completed within 3-7 days. For "on-call A.I." (usually in areas that are at close proximity to the centers) that is based on natural estrus, processing of request usually takes only 30 minutes to one hour. The actual conduct of A.I. takes around 1 to 2 hours, including travel time (for natural estrus), and 3 to 4 days (for synchronized estrus). Take note that estrus synchronization/artificial insemination (ES/AI) scheme is conducted only on a case-to-case basis and not a regular activity of the center.

Procedure

A. Upon LGU Request

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Receive request for Al	Letter of request	Center Al Coordinator/ Extension	As it comes
2. Approve request	Response letter	Center Director	1
3. Schedule the Al activity		Center Al Coordinator/ Extension	1
4. Inform/ remind the LGU about the Al schedule	Letter or other means of communication	Center Al Coordinator/ Extension	1 (phone) 2 (personal coordination) 5 (mail)
Total			3-7 days

A. On-call Al

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Receive request for Al	Phone call or actual visit to PCC	Center AI Coordinator/ Extension	15-30 minutes
2. Analyze estrus status by conducting interview with the owner	Response letter	Al Technician	15-30 minutes
Total			30 minutes to one hour

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BULL LOAN PROGRAM



Brief Description

Purebred dairy-type bulls are loaned out to qualified farmers for natural mating with purebred dairy-type buffaloes, crossbreds and native carabaos in areas where AI services are limited and not readily available. This service is an integral part of the genetic improvement program aimed at producing animals with improved productivity for milk and meat, without disregard to draft power.

Service Standard

If the bull is available and all evaluation criteria or requirements are met, coordination and evaluation activities, including the processing of related documents (from the day of receipt of the request to the release of the bull), are completed within 11.5 working days.

Bulls for loan are availed of for the following purposes: (1) to service purebred dairy-type buffaloes and crossbreds in a dairy module under the cooperative/association/dairy-buffalo multiplier farm schemes; and (2) to service native or crossbred carabaos for crossbreeding (upgrading) program in the villages.

Repayment Scheme

Loan Scheme 1: Bulls servicing purebred and crossbred dairy-type buffaloes under the cooperative/association/dairy buffalo multiplier farm

Bulls loaned under this scheme will be PCC-owned and continuously replaced every three to four years to avoid inbreeding.

Loan Scheme 2. Bulls to be used in the carabao crossbreeding (upgrading) in the villages

A junior bull (2.5 years old and below) and socialized, is considered paid in full when it has produced 25 calves. This is subject to proper proof and certification from the Municipal Agriculturist, Veterinarian or Livestock Inspector.

After submitting a copy of proof and certification to PCC, ownership of the bull shall be awarded to the bull handler

Procedures in Availing Bulls for Loan

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Request for bull loan	Formal letter or communication	Requesting party	As it comes
2. Inform concerned center and check animal availability		National Bull Loan Coordinator	0.5
3. Orient the LGUs, PVO, Requesting Party (RP) & owners of the female carabaos in the area on the bull loan program		Regional Center's Bull Loan Coordinator	1
4. Evaluate the Requesting Party		Regional Center's Bull Loan Coordinator	1
5. Follow up result of evaluation, prepare and send response letter to the Requesting Party	Formal letter	National Bull Loan Coordinator/ Regional Center's Bull Loan Coordinator	1
6.Coordinate all pertinent documents needed to effect the release of bull	MOA/Loan Contract/MR, Animal Health Certificate, Shipping Permit, approval of GIP coordinator	National Bull Loan Coordinator in coordination with the Bull Loan Coordinator of regional center, BAI, PVO, and GIP Coordinator	5
7. Attend Bull Loan Recipients' Training	Presence of the recipient to the training	Concerned PC Center	2
8. Authorize release of the bull	Authority to Release	Executive Director as signatory	0.5
9. Release the bull	Documents issued/ signed in steps 5 & 6	Center's Bull Loan Coordinator	0.5
Total			11.5 days

FROZEN BUFFALO SEMEN DISTRIBUTION



Brief Description

The PCC maintains a Semen Processing Laboratory in Carranglan, Nueva Ecija (managed by PCC at CLSU), in Los Baños, Laguna (managed by PCC at UPLB), and in Maramag, Bukidnon (managed by PCC at CMU). These laboratories produce and process frozen semen from genetically superior sires or bulls to be used for upgrading the native carabaos through artificial insemination. The frozen semen are kept in liquid nitrogen tanks and are stored in Semen Bank at PCC National Headquarters and Gene Pool for distribution. Each straw approximately contains 50 million sperm cells with at least 30% post-thaw motility. Frozen semen is available to qualified AI technicians nationwide through systematized semen distribution system linked with AI technicians, cooperatives, DA-RFUs and LGUs.

Service Standard

When requesting for frozen semen, the requesting party should provide a tank filled with liquid nitrogen. The procedure of request is detailed below:

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1.File request to PCC	Request and Disposal Form (PCC-GIQF-09)	Requesting party	15 minutes
2. Approve Request	Request and Disposal Form (PCC-GIQF-09)	Semen Bank Staff	5 minutes
3. Inspect Tank (before filling)	Request and Disposal Form (PCC-GIQF-09)	Semen Bank Staff	5 minutes
4. Fill tank with frozen semen	Request and Disposal Form (PCC-GIQF-09)	Semen Bank Staff	20 minutes
5. Inspect tank after filling	Request and Disposal Form (PCC-GIQF-09)	Semen Bank Staff	5 minutes
6.Fill up disposal form	Request and Disposal Form (PCC-GIQF-09)	Requesting party/ Semen Bank Staff	5 minutes
Total			55 minutes

^{*}Request form is available at Semen Bank (SB), Animal Breeding and Genomics Section.

Note: For regular customers, semen report utilization must be presented prior to the approval of the next request.

PROVISION OF SUPERIOR BREEDING ANIMALS



Brief Description

Due to very limited number of breeding animals, this service is provided only on a case-to-case basis and on a "first come, first serve" basis subject to availability of animals. Priority is given to interested parties who have funds to purchase and provide the requirements of maintaining the breeding animals. Other means are via the soft loan (Bull Loan and dairy buffalo module under modified "paiwi" and Dairy Buffalo Multiplier Farm schemes).

Service Standard

Assuming animals are available and all requirements are met, coordination and other activities including processing of related documents from the day of receipt of the request to the release of breeding animals can be completed within 10.5 working days.

A. Direct Purchase

An interested individual can directly purchase breeding animals from the PCC Gene Pools, provided these animals are available. The PCC has a standard pricing set for breeding animals, which is subject to change depending on the genetic quality of the breeding stocks and current market prices, as follows:

- All animals/stocks identified for sale shall have Authority to Release (ATR) from PCC National Headquarters upon recommendation of concerned Center Director, National Gene Pool Coordinator and National GIP Coordinator prior to sale.
- Heifers and bulls, riverine buffaloes (BMB, ItMB, IMB, BrMB, AmBuff, PDB), female crossbreds
 - 2.1. Minimum price for sale is Php30,000.00.
 - 2.2. Additional Php5,000.00 is added to the minimum price for sale for every six (6) months increment in age beyond 17 months up to a maximum of 60 months (5 years).
 - 2.3. Premium is added for dam's best 305D milk production record equal to or more than 2,000 liters, as follows:

2.3.1.	2,000-2,599 li.	:Php3,000.00
2.3.2.	2,600-3,000 li	:Php6,000.00
2.3.3.	>3,000 li	:Php9,000.00

- 2.4. Pregnant heifer minimum price for sale is Php40,000.00. Increase in price due to age and milk production follows the same guideline in items 2.2 and 2.3, respectively.
- 3. Heifers and bulls, Swamp buffaloes
 - 3.1. Minimum price for sale (12-17 months) is Php15,000.00.
 - 3.2. Additional Php5,000 is added to the minimum price for every six (6) mos. increment in age beyond 17 months up to a maximum of 60 months (5 yrs.)
 - 3.3. Pregnant heifer Php25,000. Increase in price due to age and milk production follows the same quideline in items 2.2 and 2.3, respectively.

Price may increase due to location i.e., current market price in Luzon is higher than in Visayas and Mindanao

Process Flow of the Release of Breeding Stocks (Direct Purchase)

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Request for breeding animal/s	Formal request (letter or resolution) addressed to the Executive Director	Requesting/Interested party	As it comes
2. Reply to formal request	Requesting party's mailing address and contact numbers	Office of the Executive Director	1.5
3. Assess request and requesting party	Instruction from the Executive Director	Executive Director Coordinator, Animal Movement Coordinator, GIP Concerned Coordinators (CBED, NIZ)	1
4. Check animal availability and its performance	Appropriate reports from GIP	Coordinator, Animal Movement	0.5
5. Determine price of animals	Guidelines for pricing disposal, sale and procurement of water buffaloes	Committee, Animal Pricing/Appraisal	0.5
6. Inform requesting party through letter about the price of the animal	Appraisal report on the animal	Coordinator, Animal Movement	0.5
7. Letter or phone call from requesting party indicating interest to buy		Requesting party	As it comes
8. Follow through the approval of request		Coordinator, Animal Movement	0.5

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
9. Facilitate accomplishment of pertinent documents needed to effect selling/release of animal/s	Statement of account (SOA) Official Receipt; Animal Health Certificate; Shipping permit; vaccination certificate	Accounting PCC Cashier OED Veterinarians Operations staff	5
10. Authorize release of the animal	Duly signed Authority to Release	Executive Director	0.5
11. Release/sell the animal	Documents issued/ signed in steps 9 & 10	Coordinator, Animal Movement	0.5
Total			10.5 days

B. Dairy Buffalo Module

As PCC has limited female buffaloes at the moment, this service/program is available to qualified farmer-cooperative members, families who are already into dairying activity, and company/corporation/cooperative/individual entrepreneurs capable of operating a semi-commercial/commercial farms on a "first-come-first serve" basis and subject still to the availability of the animals.

Brief Description

The dairy buffalo module is a facility whereby PCC entrusts purebred dairy buffaloes to qualified farmer-trustees, families, company, corporation, cooperative or individual entrepreneurs capable of operating a dairy farm business. The entrustment follows either a Modified "Paiwi" scheme or Dairy Buffalo Multiplier Farm (DBMF) scheme wherein the trustee is expected to take care of the animal, maintain animal and production records, provide necessary inputs and other obligations stipulated in the Modified "Paiwi" contract or DBMF contract; and continuously engage in dairy business following approved practices and technologies provided by PCC.

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Service Standard

If animals are available and when all the requirements are met (and under normal circumstances), the animals will be awarded within 33 days from the date of receipt of request.

B.1. Modified "Paiwi" or Trusteeship scheme: The farmer-trustee takes ownership of the original animal on the condition that he/she fully commits to the provisions stipulated in the contract. All calves of the original animal will be co-owned by PCC and the farmer-trustee on a 50:50 scheme. Farmer-trustee may opt to buy the PCC's share in each calf or the other way around.

Dairy buffalo module under the modified "paiwi" or trusteeship scheme can be availed of in two ways: (B.1.1.) Cooperative Dairy Module, and (B.1.2.) Family Dairy Module

B.1.1. Cooperative Dairy Module

- 1.1 As follows are the initial requirements to avail of the breeding stocks, which shall be accomplished by the Cooperative:
 - 1.1.1 Letter or resolution requesting for 25 head buffalo dairy module addressed to PCC Executive Director
 - 1.1.2 Master list of the Cooperative Members
 - 1.1.3 List of members endorsed by the Officers of the Cooperative/ Association to avail of the dairy buffalo module
 - 1.1.4 Certificate of being a legal entity (CDA/DOLE/SEC registration)
 - 1.1.5 Certificate of Good Standing (if registered with the CDA)
 - 1.1.6 Accomplishment Report, preferably for the last two (2) years
 - 1.1.7 Current inventory of carabaos in the area where the association or cooperative is operating
 - 1.1.8 List of schools and student population

- 1.1.9 History of the Barangay where the Cooperative is located
- 1.1.10 Socio-economic profile of the community/
- 1.2 After complying with the requirements, the following activities shall be conducted to determine if the association or cooperative and its members are qualified to be awarded of the trusteeship:
 - 1.2.1 Schedule visit to association/cooperative for ocular inspection, field visit and validation of identity
 - 1.2.2 Orientation meeting with the Officers and Members
 - 1.2.3 Social Preparation Training (SPT): Issuance of Training Certificate by the SPT Team
 - 1.2.4 Technical Training: Issuance of Training
 Certificate by the Technical Training Team
 - 1.2.5 Evaluation of the farmer-trustee, i.e., readiness to receive animals prior to release of buffaloes in terms of the guarantee fund, animal shed, forage resource, source of clean water
 - 1.2.5.1 Photocopy (certified true copy) of the Guarantee Fund Bank Deposit
 - 1.2.5.2 Total amount of the Guarantee Fund
 - 1.2.5.3 Photocopy (certified true copy) of the resolution regarding Guarantee Fund between the Cooperative and the PCC Representative
 - 1.2.5.4 Availability of animal shed
 - 1.2.5.5 Availability of forage production area/forage resource
 - 1.2.5.6 Availability of clean and safe source of drinking water

- 1.2.5.7 Availability of electricity in the area
- 1.3 If the two abovementioned processes (1.1 and 1.2) are complied, the farmer-trustee is declared by the PCC Evaluation Team eligible for the trusteeship and the association or cooperative ready for entrustment of the breeding animals under the Modified "Paiwi" scheme. Then, schedule of animal release to the association or cooperative shall be set provided the following documents are duly accomplished:
 - 1.3.1 Signed MOA with the Cooperative, LGU and PCC
 - 1.3.2 Signed Modified Paiwi Contract with the Farmer-Trustee, Cooperative and the PCC
 - 1.3.3 Issuance of individual animal record
- 1.4 Monitoring and Evaluation (shall be done as part of the evaluation and post-evaluation processes)

B.1.2. Family Dairy Module

Qualified family or families may avail of five (5) to ten (10) head dairy buffaloes in case they are already into dairying activity using crossbred or native carabaos for around five years or more. This is prioritized in areas with at least 100 breedable animals and where a dairy cooperative does not exist yet. Moreover, these trusteefamilies have to agree first to later organize themselves into a dairy association or cooperative. The implementing guidelines follow the Cooperative Dairy Module with the exclusion of the requirements, which are exclusively to be accomplished by a dairy cooperative.

B.2. Dairy Buffalo Multiplier Farm (DBMF) Scheme: Farm owners/corporation/company/cooperative that are capable of operating and would like to engage in a semi-commercial/commercial dairy buffalo farm business may avail of 20 (riverine-type) heifers or more. A 30-day period from the date of receipt of the animals shall be observed under this scheme. Ownership of the original animals will be transferred to the DBMF operator after it has been fully paid according to the contract. The PCC has the first option to buy succeeding calves produced by the original stocks and the decision will be made on or before the calf reaches 12th month of age.

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Qualification requirements of applicant as a Dairy Buffalo Multiplier Farm (DBMF)

- 1. Proponent Farm must have a recent Business Permit/Mayor's Permit
- 2. Proponent must secure Barangay Clearance in the community
- 3. Proponent must have a co-maker such as legal wife, parents, and children with age of not less than 18 years old
- 4. Proponent must have a dairy production and management capability and willing to be trained on technical aspect of the scheme
- 5. Proponent must have a titled/long-term leased land with prepared and developed pasture area or otherwise an evidence of source of forage/soilage
- 6. Proponent should have the means to provide for feed and mineral supplementation
- 7. Proponent must have available production facility (animal shed, milking parlor, feed storage, animal treatment and isolation areas) and equipment
- 8. Proponent must have the capacity to provide ad libitum supply of potable water
- 9. Proponent must be able to shoulder the transport cost of the animals from PCC to the DBMF
- 10. Proponent must be subjected to the evaluation of the PCC Team

Process Flow of the Release of Breeding Stocks (Dairy Buffalo Multiplier Farm)

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Request for dairy module	Formal request (letter or resolution) addressed to the Executive Director	Requesting party/ farmer-cooperative	As it comes
2. Reply to formal request	Requesting party's mailing address and contact numbers	Office of the Executive Director	1.5
3. Assess request and requesting party	Instruction from the Executive Director CDA/DOLE Registration Certificate of Good Standing (CDA), Accomplishment reports, List of members, Audited Financial Statement, Current inventory of carabaos Certified photocopy of certificate of registration of the farm, Business Permit, Barangay Clearance (DBMF)	Executive Director Executive Director Coordinator, Animal Movement Coordinator, GIP Concerned Coordinators (CBED, NIZ)	
4. Check animal availability and its performance	Appropriate reports from GIP	Coordinator, Animal Movement	0.5
5. Submit the letter of intent and result of evaluation to the Executive Director	Letter of intent Evaluation report	NIZ/RIZ/CBED Coordinators	1
6. Inform requesting party on the status of their request	Formal letter	Executive Director	2

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
7. For approved request, the following will be conducted: a. Orientation on dairy buffalo module b. Background investigation on would-be trustees c. Social Preparation Training d. Training on dairy buffalo management	List of would-be trustees Benchmark information survey Carabao inventory Complete attendance of would-be trustees	Requesting party NIZ/RIZ/CBED coordinators requesting party PCC Trainers PCC Trainers	19
8. Check on the availability of required farmer-trustees' counterpart	4m x 4m animal shed; Bank certification for Php25,000.00; Guarantee Fund; 1000 sq m planted with napier or any improved grass; Certificates of attendance in step 7 c and 7 d	NIZ/RIZ/CBED coordinators	1
9. Facilitate accomplishment of pertinent documents needed to effect selling/release of animal/s	Authority to Release; Animal Health Certificate; Shipping permit; FMD Vaccination Certification/ permit (if required) Loan Contracts	Animal Movement Coordinator OED Veterinarians PMED staff NIZ/RIZ/CBED coordinators	5
10. Authorize release of the animal	Duly signed Authority to Release	Executive Director	0.5
11. Check readiness of unloading area	unloading mound and corral	NIZ/RIZ/CBED coordinators	1
12. Release/ award the dairy buffalo module	Documents issued/ signed in steps 9 & 10	Coordinator, Animal Movement NIZ/RIZ/CBED coordinators	0.5
Total			33 days

TRAINING OF TECHNICIANS AND FARMERS



Brief Description

The PCC consistently ensures that farmers and its partner-implementers are capacitated to effectively carry out the agency's various programs through the provision of relevant trainings. Areas of training include animal reproduction, animal nutrition, animal health, forage production, cooperative development, and dairy production and processing and marketing.

Service Standard

When all requirements are met, the applicant shall receive notice of acceptance to the training course within 7 days from the date of receipt of application.

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
Disseminate invitation/ announcement letter	Letter of invitation Application Form	Training Coordinator	1-3
2. Receive applications/ endorsement	Accomplished Application Form Endorsement Letter	Center Director/ Training Coordinator	As it comes
3. Screen and select applicants	Accomplished Application Form Summary of qualifications of applicants	Center Director Technical Staff	1 hour
4. Submit qualified applicants to the Office of the Executive Director	List of qualifies applicants	Center Director (Signatory)	0.5 hour
5. Notify qualified and disqualified applicants	Letter of invitation Application form	Training Coordinator	1-3 days
6. Receive confirmation of attendance	Confirmation (written or verbal)	Center Director/ Training Coordinator	1 hour (phone)
Total			2-7 days

TECHNICAL ASSISTANCE AND EXTENSION



Brief Description

The agency provides technical assistance, free of charge, to its farmer-clientele in the areas of animal reproduction, animal nutrition, animal health, forage production and improved feeding system, cooperative development, and dairy production and processing. Experts on these areas are regularly sent to the villages to respond to the farmers' specific needs.

Service Standard

Farmers, private individuals or organizations who need technical assistance from the PCC may visit any of its regional centers and they will be attended to by the agency's technical staff. The length of discussion varies depending on the subject matter and availability of technical staff. If the service requires an on-site assessment or field visit, a schedule is agreed upon by both parties. Again, the duration of the technical service varies depending on the situation on-site.

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/ PERSON	PROCESSING TIME (No. of Days)
Receive request for technical assistance	Letter of Request for walk-in inquiries	NIZ/Training Officer	As it comes
2. Interview Requesting Party (for walk-in)		PCC Technical Staff KMD Training Assistant/NIZ	15-30 minutes
3. Analyze Situation		PCC Technical Staff	15-30 minutes
4. Recommend or implement immediate action	Formal (written or verbal) communication On-site visit	PCC Technical Staff	Within one day for written recommendation Variable time for verbal communication and on-site visits recommendation.

ANALYSIS OF MILK SAMPLES



Brief Description

The Dairy Laboratory provides service for analysis of milk components in support of the Genetic Improvement Program of PCC. Service is mainly for dairy herds that are participating in milk recording and performance testing including PCC-assisted cooperatives, among others. Milk samples are rapidly analyzed for milk fat percentage, milk protein percentage, lactose, total solids, and somatic cell count (SCC). The facility is presently available at the PCC National Headquarters.

Service Standard

Under normal circumstances, the analysis is completed within nine working days from the date or request or submission of milk samples. Raw milk samples can be preserved up to 7 days at 4oC-5oC, if bronopol is added. If milk sample is unpreserved (no added bronopol), place the sample in a container with ice then immediately submit to the laboratory for analysis the soonest time possible (within 2 days). Unpreserved samples maybe analyzed up to 72 hours after initial collection of milk samples. Prospective clients should first make arrangement with milk laboratory personnel before submission of samples for orientation/training on proper milk sampling, handling, and storage scheduling.

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Request for milk analysis	Formal letter*	Requesting Party	As it comes
2. Approve request		Executive Director and Genomics and Bioinformatics Section Head	Within one week upon receipt of request
3. Inform Requesting Party of schedule of submission of samples		Dairy Laboratory Staff/ Molecular Genetics Lab Staff	1 day after approval of the request
4. Submit samples	Request Form for Analysis (PCC- GIQF-11)	Requesting party	As it comes

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STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
5. Analyze milk samples	Formal letter*	Dairy Laboratory Staff/ Molecular Genetics Lab Staff	1 day
6. Prepare analysis report		Dairy Laboratory Staff/ Molecular Genetics Lab Staff	Within 5 working days after completion of analysis
7. Inform Requesting Party of completion of analysis	Phone call, Formal letter	Dairy Laboratory Staff/ Molecular Genetics Lab Staff	0.25 day
8. Provide a copy of the analysis report	Report of Analysis (PCC-GIQF-12)	Dairy Laboratory Staff/ Molecular Genetics Lab Staff	0.25 day
Total		9 days	

 $^{^*}$ For research purposes, please ensure that your research is coded/authorized by the RDD. Please have your letter noted by the RDD chief.

NUTRITION LABORATORY SERVICES



Brief Description

The Nutrition Laboratory supports the R&D activities of the whole PCC Network and provides technical services and information to students, researchers and farmers in assessing the nutritive value of feedstuffs and other related samples to address nutritional problems and nutrient deficiencies of ruminants and other livestock species.

At present, the laboratory performs proximate analysis such as dry matter/moisture, ash, crude protein, crude fat and crude fiber; detergent analysis such as acid detergent fiber, neutral detergent fiber and acid detergent lignin; mineral analysis such as Calcium and Phosphorus and other relevant analysis.

Service Standard

Normally, once the request is approved, the examination is completed and the results can be released within 2 to 14 working days. Release of the results also depends on the number of samples submitted and tests conducted.

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Submission and receipt of samples	Request Form (PCC-PNSQF-01)	Requesting Party	As it comes
2. Examination Proper: a.Proximate Analysis ·Dry Matter/ Moisture ·Crude Ash ·Crude Protein ·Crude Fat ·Crude Fiber		Laboratory Staff/ Laboratory In-charge	Within one week upon receipt of request •1-5days •1 day •1-3 days •1-2 days

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STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
2. Examination Proper: b. Detergent Fiber Analysis · Acid Detergent Fiber · Neutral Detergent Fiber · Acid Detergent Lignin c. Mineral Analysis · Calcium · Phosphorus · Others d. pH Analysis and other relevant tests		Laboratory Staff/ Laboratory In-charge	Within one week upon receipt of request -1-2 days -1-2days -1-2days -2-3 days -2-3 days -2-3 days -1 day
3. Record the results	Logbook	Laboratory Staff/ Laboratory In-charge	Right after the examination
4. Prepare and certify laboratory results	Laboratory Result Form (PCC-PNSQF-02)	Laboratory Staff/ Laboratory In-charge	1 day
5. Release of laboratory results	Logbook (PCC-PNSQF-29)	Laboratory Staff	1/2 day

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BIOSAFETY AND ENVIRONMENT LABORATORY



Brief Description

To maintain a disease-free environment and control possible disease outbreaks, the PCC established its own Biosafety and Environment Laboratory. This facility caters to the National Impact Zone (Nueva Ecija) clientele, National Gene Pool, Livestock Biotechnology Research and Animal Facility and PCC Regional Centers nationwide. It will also provide assistance to researchers and academicians involved in animal health and biological sciences, and conduct collaborative researches.

At present, the laboratory performs fecalysis, blood parasite examination, serological testing (Brucella Test, ELISA for Neospora and CAE), molecular testing for detection of microbial pathogens (PCR, nPCR among others), and conventional microbiological testing (bacterial isolation and identification, antibiotic sensitivity testing, coliform count and total plate count).

Service Standard

Normally, once the request is approved, the examination is completed and the results can be released within 2 to 6 working days except for the mouse inoculation test (MIT) which needs 21-day observation. Release of the results also depends on the number of samples submitted and tests conducted. The clients are then informed with the unofficial laboratory results in advance.

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Submission and receipt of samples	Request Form	Requesting Party	As it comes
2. Examination Proper: a. Parasitological Analysis b.Hematological Analysis c. Serological-based Testing d. Conventional Microbiology Testing		Laboratory Staff/ Laboratory In-charge	a. 1 day b. 1 day c. 1 day d. 4 days

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
Examination Proper: e. Molecular-based Testing f. California Mastitis Testing		Laboratory Staff/ Laboratory In-charge	e. 3 days f. 1 day
3. Record the results	Log Book	Laboratory Staff/ Laboratory In-charge	Right after the examination
4. Prepare and certify laboratory results	Laboratory Result Form	Laboratory Staff/ Laboratory In-charge	1 day
5. Release of laboratory results		Laboratory Staff	0.5 day
Total			2-6 days

INFORMATION AND LIBRARY



Brief Description

The PCC, through its Knowledge Management Division, disseminates relevant knowledge and information about its program and services using information, education, and communication (IEC) materials complemented with multimedia materials. IECs about PCC, its stakeholders and other beneficiaries of the program are published in various formats to suit the specific needs of its readers.

Likeswise, to help various researchers (students, professional and other groups), the PCC established a Scientific Library with references pertaining to buffaloes/carabaos and either related fields. All Library materials are for room use only except for employees and affiliates who may wish to borrow and take the materials out.

Service Standard

Depending on the availability of IEC/multimedia materials, interested individuals or organizations may send their letter of request or visit PCC to have copies of the PCC information materials. These materials can also be readily accessed or borrowed from the PCC Library.

Everybody who wishes to use the library would be attended to according to their needs from 8:00 AM to 5:00 PM, Mondays to Fridays.

Procedure

A. Inquiries/Request for IECs/Multimedia Materials and Other Information

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Receive Request	Letter of Request	Requesting Party	As it comes
2. Approve and forward request to concerned staff		Executive Director/ Information Officer/ Concerned Staff	0.5 day
3. Prepare information requested		Information Officer/ Concerned staff	May vary (will depend on the data/ information needed)*
4. Send reply to requesting party	Reply letter and attachment	Information Officer/ Concerned staff	May vary

^{*}Request for information on specific subject/issue about carabao are attended to within 2-3 days. For information which requires search and consolidation, the period maybe longer.

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B. Library

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Register in the logbook	Identification Card	Researcher	1 minute
2. Request researcher to leave his/her things at the designated place for Library users		Librarian	1 minute
3. Seek assistance of the Librarian		Researcher	May vary
4. Guide researcher to find the references needed		Librarian	May vary

VISITORS' ASSISTANCE



Brief Description

As part of its information dissemination activities, PCC has designated the Knowledge Management Division (KMD), with its assigned Visitor's Assistance Officer (VAO), to take charge of the concerns of the visitors. The VAO's main function is to receive various sectors that visit the facilities of the agency. Orientation of the programs and services is being done through a 15-minute film showing, followed by a brief tour to the following areas to showcase the dairy buffalo value chain:

















Service Standard

Information materials about the PCC's programs and services are prepared for the visitors/group of visitors whose visit is pre-arranged. Unexpected/walk-in visitors, however, are also being given appropriate assistance and/or necessary orientation. The whole orientation process, including the tour of facilities, lasts about 45 minutes to one (1) hour.

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/PERSON	PROCESSING TIME (No. of Days)
1. Request for visit to agency	Formal letter of request address to the OED	Requesting Party	As it comes
2. Approval of request		Office of the Executive Director	As it comes
3. Identification of visitor's profile		Guard on duty	2minutes
4. Film showing	Reply letter and attachment	VAO	15minutes
5. Question and answer		VAO/Technical expert	10minutes
6. Tour of and orientation about the facilities		VAO	25 minutes
Total			45 minutes to 1

MARKETING ASSISTANCE



Service Standard

Clients may inquire for assistance for the following marketing and business aspects.

- 1. Establishment of a dairy farming business, a dairy/meat products outlet, or a silage production business.
- 2. Consultancy for aiding business decision making.
- 3. Brand and logo development.
- 4. Request for business and marketing trainings.
- 5. Inquiry on assessing their profitability to help them in performing business decisions particularly market expansion.
- 6. Request for any data relative to PCC's business and marketing related projects.

Procedure

STEPS	REQUIREMENTS	RESPONSIBLE OFFICE/ PERSON	PROCESSING TIME (No. of Days)
1. File Request to PCC	Filled-Out Service Request Form from Business Development and Commercialization Unit or National Impact Zone or CBED Coordinator	Requesting Party	3 minutes
2. Discuss the terms of the request with the appropriate PCC staff	Depending on the nature of the service requested, written supporting documents.	Requesting party and the appropriate BDCU, NIZ or CBED staff	10 to 30 minutes
3. Approval of the request	Approved request form	BDCU, NIZ or CBED Staff	1 minute
4. Secure Service Agreement Terms of Reference		BDCU, NIZ or CBED Staff	15minutes
5. Delivery of the service	All approved documents and promised supporting documents coming from client as prerequisite to the request.	Requesting party and the appropriate BDCU, NIZ or CBED staff	1 to 5 days or longer depending on the nature of the request.

PCC

Network of Centers

PCC has 12 regional centers strategically located nationwide: five centers in Luzon, four in the Visayas and three in Mindanao

PCC at Mariano Marcos State University | Batac City, Ilocos Norte Telephone No.: (63) (077) 792.3187 Email: pccmmsu⊚gmail.com

PCC at Cagayan State University | Tuguegarao City, Cagayan Mobile No.: (63) 0916.752.8507 | (63) 0917.518.4302 Email: pccpiat07@vahoo.com

PCC at Don Mariano Marcos Memorial State University | Rosario, La Union Mobile No.: (63) 0908.864.9975 | (63) 0930.782.6038

Email: pccdmmmsu95@yahoo.com

PCC at Central Luzon State University | Science City of Muñoz, Nueva Ecija Telephone No.: (63) (044) 456.5238 to 39 Email: pcc.clsu@yahoo.com

PCC at University of the Philippines at Los Baños | Los Baños, Laguna Telephone No.: (63) (049) 536.2729 | (63) (049) 534.2009 Email: pccuplb@gmail.com

PCC at Visayas State University | Baybay City, Leyte Telephone No.: (63) (053) 563.7649 Email: pccvsu@gmail.com

PCC at West Visayas State University | Calinog, Iloilo Telephone No.: (63) (033) 320.2445 Email: pccwvsu⊚yahoo.com

PCC at La Carlota Stock Farm | La Granja, La Carlota City, Negros Occidental Mobile No.: (63) 0947.893.4794 | (63) 0921.542.4379 Email: pcclcsf@yahoo.com

PCC at Ubay Stock Farm | Ubay, Bohol Telephone No.: (63) (038) 518.5598 Email: pccusf.ubay@yahoo.com

PCC at Mindanao Livestock Production Complex | Kalawit, Zamboanga del Norte Telephone No.: (63) (065) 212.2636 Fax No.: (63) (065) 311.4762

Mobile No.: (63) 0949.404.4559 | (63) 0906.956.9060 Email: pcc-mlpc09@yahoo.com

PCC at Central Mindanao University | Maramag, Bukidnon Mobile No.: (63) 0939.133.9815 | (63) 0939.916.9719 Email: pccmusuan@yahoo.com

PCC at University of Southern Mindanao | Kabacan, North Cotabato Telefax No.: (63) (064) 248.2250

Mobile No.: (63) 0919.397.0872 | (63) 0920.621.9722 Email: usm pcc@yahoo.com

How can farmers and other interested entities avail of PCC services? Interested parties can visit or contact any of the following:

OFFICE OF THE EXECUTIVE DIRECTOR

PCC National Headquarters and Gene Pool Science City of Muñoz, 3119, Nueva Ecija Philippines

7 (63) (044) 456. 0731 to 34

<u>III.</u> (63) (044) 456. 0730

pcc-oed@mozcom.com

www.pcc.gov.ph

PHILIPPINE CARABAO CENTER

National Headquarters and Gene Pool

Science City of Muñoz, 3120 Nueva Ecija Philippines Tel. Nos: (+63)44 456-0731 to 34 Fax No: (+63)44 456-0730 Email: oed@pcc.gov.ph pcc-oed@mozcom.com

Manila Liaison Office

5F DCIEC Bldg., NIA Complex EDSA Diliman, Quezon City Philippines Tel. No.: (63) 02 921.3863

Fax No.: (63) 02 921.3863 Fax No.: (63) 02 926.7077 E-mail: pcc-mlo@mozcom.com