

Management of Assets and Consumables Purchase for Quality Semen Production

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Abstract

India has 51 semen stations (Central Monitoring Unit constituted by Government of India Statistics, 2011) in different states including government, cooperative and private. With the prime objective to produce quality semen, these semen stations need to have proper processing of semen which requires good quality equipments and laboratory consumables. To produce top quality semen, specific make requirements with quality standards are purchased with higher rates based on the recommendation of purchase committee whereas routine materials are purchased on lowest rate quotation basis. Quarterly purchase practice in consultation with Veterinarian related to semen production is beneficial over and above the monthly or yearly purchase as to avoid frequent shortfall and deterioration in quality due to long storage.

Keywords: Consumable, equipment, purchase, semen production

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INTRODUCTION

India continues to be the largest milk producing nation with estimated milk production for the period stood at 121 million tonne (mt), close to 17% of the world's total produce according to the report of National Dairy Development Board (NDDB) for 2010-2011 [1]. India is bestowed with 199.1 and 105.3 million cattle and buffalo population contributing 15.3% and 55.0% of total animals world's population, respectively. India has vast cattle genetic resources with 30 well defined breeds – a huge cattle population comprising a crossbred and non-descript cattle throughout the diverse agro-ecological regions of the country whereas there are few well defined buffalo breeds with standard qualities and with specific physical characters that differentiate them unmistakably from the other types as may be found in various states [2], although average per animal milk productivity is much less than other developed countries. To improve the poor productivity, systematic breeding strategies of the milch animals would play important role.

Artificial Insemination (AI) is potential tool to cover large population under breeding strategies over a short period of time. Pure and

crossbreeding of native animals with superior germplasm open the way for successful implementation of AI programmes throughout the country. With the increasing trend of artificial insemination (AI) in the field, demand of good quality semen is increasing simultaneously with the result of increasing importance of elite bulls day by day [3].

Production of quality semen from healthy and disease free bulls is basic and foremost requirement for artificial insemination. With the prime objective to produce quality semen, these semen stations need to have proper processing of semen which requires good quality equipments and laboratory consumables. Thus, purchase of assets and consumables is a critical segment for semen stations. Keeping the facts in mind it should be mandatory for semen stations to focus on their purchase related to semen production.

TYPES OF PURCHASE

Based on the specific requirements and production target, the semen stations can broadly classify the purchase into three groups:

1. Asset purchase – Laboratory equipments for semen production and related assets

2. Consumable purchase – further divided into different categories like semen straws, chemicals, antibiotics, glasswares and plastic wares
3. Miscellaneous purchase

REQUIREMENT PLANNING

A formal committee is constituted by competent authority to assess the annual requirement for semen production. The annual requirement of assets and consumables is calculated based on the target set for semen production for the year and total consumption during last year. Last year consumption helps to analyze and form the basis for calculation of requirement. The required number of assets is assessed against the targeted production as per the mandate of Minimum Standard for production of semen issued by Government of India [4]. Over and above, new technology assets can be adopted to take the advantages improved methodology. However, the consumables need is formulized as per the annual requirement. Annual requirement is then bifurcated into quarterly requirement. Quarterly assessment of requirement is practiced to ensure purchase of quality product and proper financial management. Bulk purchase for annual requirement for consumables can be avoided because of deterioration in quality of the product due to long storage. Right purchase proposition at the right time to reduce your inventory level [5].

PURCHASE PROCEDURE

Assets Purchase

Depending upon the annual requirement, competent authority makes the budgetary provision during the year. Assets are purchased either against competitive bids or against single bid. Quotations are invited from minimum three suppliers in case of purchases against competitive bids, whereas, purchases against single quotations are made from the approved parties only. After receipt of quotations, purchase committee (comprising of sectional head of semen station, accounts officer and store officer) prepares the committee proposal and comparative statement from all the bids received and recommends the supplier from whom the material is to be purchased with justification. Mostly committee recommends the supplier on lowest quotation basis. Competent authority

based on committee's recommendations approves the purchase. Formal purchase order is then placed on the approved supplier along with the predefined purchase terms and conditions to supply the material. After receipt of material in store, material is available for use after completion of store formalities.

Consumables Purchase

Monthly reorder status generated by store circulated to sectional head of semen station forms the basis to initiate procurement/purchase of the required materials. Based on requirement, purchase indent is raised by the concerned section recommended by sectional head. Purchase indent is then forwarded to store to check quantity available in store and last purchase price. Store, then forwards the purchase indent to accounts to assess fund availability and budget allocation. It is then forwarded to competent authority for approval. Competent authority approves or disapproves the purchase based on requirement and powers delegated to him. Consumables are mostly purchased at quarterly intervals. Sometime monthly purchase is also required in case of any shortfall. For the consumables required on regular basis, quotations are invited for annual supply contract from the approved suppliers. After receipt of quotations, purchase committee comprising of sectional head of indenting section, accounts head and store in charge prepares the comparative statement from all the bids received and recommends the supplier from whom the material is to be purchased with justification. Competent authority, based on committee's recommendations, approves the supplier for purchase of consumables. At the time of purchase, formal purchase order or a letter is placed on the approved suppliers.

Miscellaneous Purchase

Purchases of miscellaneous items, required urgently are made locally on bill basis. A letter or telephone conversation with the supplier is sufficient.

MATERIAL RECEIPT

In all cases of purchase, materials are received in store with primary inspection for the quality/quantity and specifications mentioned against purchase order/supply note. On receipt

of materials, Store officer informs sectional head of related department along with quality assurance/quality control group to conform its quality standards. Any deviation or short fall in material quality/quantity is immediately communicated to the supplier either telephonically or through proper correspondence.

QUALITY CONTROL/QUALITY ASSURANCE

The concerned group inspects and assures the desired quality of the materials. The assets requiring installation would be evaluated subject to its proper onsite installation by service engineer of the supplier/manufacturer. The quality norms of consumables i.e. semen straws, chemicals and others are as follows:

SN	Items	Particulars	Quality Assurance Parameters
I	Semen Straws		
	(a)	Manufacturer	Reputed manufacturer semen straws compatible with filling and sealing machine
	(b)	Supplier	Reliable supplier for imported semen straws
	(c)	General inspection	Proper checking of straw packaging and random assessment of straw Quantity and specified colour standards
	(d)	Physical assessment	Careful assessment of straw intactness (cracks/ dent free) and alignment (bent free), factory plug homogeneity and compactness and free movement of factory plug
	(e)	Laboratory/ Machine testing	Straws movement as testing of some empty straw in auto filling, sealing (run test) and printing machine (printing quality test).
	(f)	Microbial Test	Random microbial load testing initially and routine microbial load assessment during semen processing may have added advantage
II	Chemicals		
	(a)	Purity	Highest purity chemicals either Analytical Reagent (AR) or Graded Reagent (GR), from reputed manufacturers are acceptable
	(b)	Quality testing	Spilt reagent testing compared with control for post thaw revival of seminal ejaculates for each new batch of chemicals
III	Others		
	(a)	Quality assessment	Plastic and glasswares directly or indirectly involve in semen production are also conform the quality standards

ACCEPTANCE AND REJECTION OF MATERIALS

Based on quality control and quality assurance test report submitted by the quality assurance group, the materials conforming to our quality standards are accepted and are available for use after completing store formalities. The Store officer prepares the Good Inward Note (GIN) for satisfactory consignment and sends to competent authority through sectional head for the release of payments. Poor quality or substandard materials are rejected. Material rejection report is prepared by the committee and the same submitted to competent authority for approval. Unsatisfactory consignments are sent back to supplier at their expenses.

SUPPLIER EVALUATION

Periodic supplier evaluation is mandatory to know the performance of the suppliers over

the period of time. The performance (%) is calculated based on quality and delivery rating. Supplier conforming to the norms fixed by competent authority is continued for purchase subsequently. Competent authority sends a formal letter to poor performer with request to improve its overall rating. If the supplier improves its performance on further supply, the same is continued for purchase otherwise competent authority reserves the right not to purchase the materials from such suppliers.

SELECTION AND APPROVAL OF NEW SUPPLIER

Purchase of any items for semen station is carried out from approved suppliers only. However, the purchase committee is always committed to explore the possibilities for any new good and genuine suppliers for the requirement. If we come to know new

supplier, firstly we go for its approval from competent authority based on the recommendations of the purchase committee with justification. Then on its approval, we may introduce the new supplier and initiate the purchase. Selection of new supplier is based its commitment for the supply of quality product, at reasonable rates with optimum delivery schedule.

CONCLUSIONS

Purchase of quality material is necessary to ensure the quality semen production. Therefore, it is good to use equipments/consumables from reputed companies and graded reagents from various manufacturers. Further, better timely purchase planning of materials results into smooth operations and cost effective financial management of the organization. Modern and latest technology equipments and consumables usher the new era of quality semen production which conforms the quality standards. It is better to purchase specific make requirements if any with quality standards are purchased with higher rates based on the recommendation of semen station purchase committee whereas routine materials are purchased on lowest rate quotation basis under purchase policy.

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