

# **Guidelines for management livestock**

## **Introduction**

Investment in development projects for build capacity using conventional methods, has had little impact on production indicators, therefore, we need to move towards extension methods with participatory approaches, where the need of the producer in coordination with the agricultural calendar and the availability of resources is considered, guiding the actions of the estate through techniques of "learning by doing" to encourage experimentation producer and prepare for decision-making. For the original families, you need to have minimum standards for animal feed.

Before starting the process of breeding cattle, each project participant receives training and materials for the proper management and handling of animals. The producers receive knowledge and skills in animal husbandry in an improved manner, feeding management and animal health, using locally available resources.

## **Methodology**

For the process of capacity building of producers, it is recommended to work with the Field Farmer Schools (FFS) methodology. To form an FFS is necessary to fulfill certain stages (commonly known as ABC), with the following: i) identification of the area or territory priority and the selection criteria, etc. ii) choice of the facilitator, iii) diagnosis and farm plan, IV) participatory curriculum design, V) curriculum implementation, VI) monitoring and evaluation

Identification and criteria referred to in paragraph i) are established in the project design and only proceed to make an adjustment if necessary. A technical (or facilitator) is identified, responsible for field implementation process with producer groups. The selected facilitator performs a process of methodological and technical training in the field, becoming a constant feedback to prepare the document Screenplay by specialty or experience that provides feedback information with other technicians of the equipment.

For each of the selected producers are prepared a participatory diagnosis and farm plan is made. This diagnostic have information as biophysical, socio-economic, productivity and environmental information (Baseline), a series of indicators to measure the changes reached in the management of farms, the application of the knowledge acquired in FFS, allowing develop training curriculum.

Likewise, the project team provides training and technical knowledge to field facilitators to the development of curricula with producers, so there is combinations of experience, scientific and technical knowledge through FFS for encourage the adoption of technology in agricultural farms.

All the thematic content for the development of the FFS is developed in a participatory manner, based on the difficulties and difficulties existing in the development of production systems, needs and opportunities for producers, and also added some issues specific expected to promote at the project.

Training events are held at least once a month, the size of groups of participants varies from 15 to 25 members, generally small and medium producers. All events of FFS will coordinate with the production schedule.

During the empirical process of rural extension for technology transfer, have been developed a set of field methodologies to strengthen the adoption of each of the proposed initiatives; the most common were: demonstration plots, exchange of experiences, workshops and individual visits to farm. However, these methods have a difference to conventional methods as they are applied with some participatory techniques under the FFS approach. When you already have oriented the new technology to be applied, the core activities of the day (practical). For the application of each of these methods is prepared a methodological backup. The booklet is designed in an experiential way and easily understood by users that support the activity performed in the day, what is the base to deepen more on methodology or on different issues that shape the curriculum.

A monitoring and evaluation system is established, to monitor all activities through the collection of data to redirect the process or make some adjustments to improve the focus and measure the impact of the methodology is established. Assessment and planning meetings are also scheduled, which allow to review test results and perceptions of participants on the operation of the FFS.

Major Topic	Sub-topics	Objectives
Improve animal management	<ul style="list-style-type: none"> <li>- Introduction</li> <li>- Benefits of improved animal raising</li> </ul>	<ul style="list-style-type: none"> <li>- Describe at least three benefits of improved animal management.</li> </ul>
Animal house	<ul style="list-style-type: none"> <li>- Site selection and design (zone, materials)</li> <li>- Cleaning of infrastructure animals and waste management.</li> </ul>	<ul style="list-style-type: none"> <li>- Describe the importance of infrastructure</li> <li>- Know elements on site selection, type, design and necessary materials for the construction</li> <li>- Communicate methods of proper animal waste management</li> </ul>
Animal nutrition	<ul style="list-style-type: none"> <li>- Introduction to animal nutrition</li> <li>- Materials and method to prepare balanced ration</li> <li>- Why and in what amount to be fed?</li> <li>- Tools to calculate the animal weight (use of tape)</li> <li>- Use of efficient microorganisms for animal feed</li> <li>- Costs and benefits of balanced rations</li> </ul>	<ul style="list-style-type: none"> <li>- Formulate animal feed by using locally available feed ingredients and efficient microorganisms.</li> </ul>
Fodder/Forage management	<ul style="list-style-type: none"> <li>- Types of fodder/forages</li> <li>- Grass/fodder management (feeding and cultivation, optimum time of use, proper use of electric fences)</li> <li>- Establishment, management and use of silvopastoral systems</li> <li>- Use of agricultural residues, sugarcane, enriched silage, feed fruit trees</li> </ul>	<ul style="list-style-type: none"> <li>- Describe the benefits of fodder/forages</li> <li>- Demonstrate the optimal mix of grasses and legumes.</li> </ul>
Mineral block preparation	<ul style="list-style-type: none"> <li>- Functions of minerals and advantages of use</li> <li>- Supplementation with mineralized salts</li> <li>- Multinutrient blocks and their importance</li> </ul>	<ul style="list-style-type: none"> <li>- Prepare mineral blocks using locally available materials to stimulate growth and reproduction of animals.</li> </ul>
Good quality animal selection	<ul style="list-style-type: none"> <li>- Selection of good quality male and female for breeding purposes</li> <li>- Methods of breeding</li> </ul>	<ul style="list-style-type: none"> <li>- Select good quality male and female animals</li> <li>- Describe at least two disadvantages of inbreeding.</li> </ul>
Care of newborn and pregnant animals	<ul style="list-style-type: none"> <li>- Care of pregnant animals</li> <li>- Cleanliness for newborn animals</li> <li>- Method of cutting the umbilical cord</li> <li>- Colostrums feeding</li> <li>- Supplementation to lactating cows to rumen development</li> </ul>	<ul style="list-style-type: none"> <li>- Describe at least five things to be considered in taking care of pregnant animal</li> <li>- Demonstrate method of cutting the umbilical cord and why it is important</li> <li>- Describe the benefits of feeding colostrums to new born animal</li> <li>- Stimulate rumen development and weaning cash method</li> </ul>
Parasites	<ul style="list-style-type: none"> <li>- Types of internal parasites, major symptoms and</li> </ul>	<ul style="list-style-type: none"> <li>- Describe types of parasites and any four harmful effects caused by parasites</li> </ul>

	prevention measures - Types of external parasites, major symptoms and prevention measures	- Summarize major preventive measures on parasites infestation
Disease prevention	- Health and diseases: types of health - Causes and origins of diseases - Disease diagnostic - Introduction in disease prevention - The animal health calendar - Information on vaccines - The health animal certification - The economic technical reasoning	- Describe the methods of prevention of diseases - Describe the benefits of vaccination - Understand the roles of farmers in prevention of diseases
Ethnoveterinary medicine	- Locally available medicinal herbs - Guide to collect, dry and identify botanical specimens - Preparation of medicinal plants - Use of local herbs	- Communicate about medicinal herbs available locally and their use
Record keeping	- Introduction on record keeping - Method and benefits	- Describe at least two benefits of animal record keeping - Maintain simple records
Farm plan	- Map of the estate: land use, fodder resources and infrastructure -Problems of the Farm and possible solutions -Solutions: feasibility and deadlines to meet them	- Integrated planning in the management of cattle
Management of farm inputs	-The generic and brand product - Treatment and application - Dosage - Care and storage farm inputs	- Knowing the importance of the proper use and limitations of routine products and inputs in livestock management
Water management	- Management and conservation of water for livestock -Management and conservation of water for human -Reforestation	- Ensure the management and conservation of water for livestock and human consumption
Good milking practices and dairy processing	-The Importance of compliance with good milking practices. -Good practices on the farm, milking clean, manufacturing and marketing	- Implement best practices for milking and dairy processing