

Recommendations for Environmental Enrichment

— a Guide

Ensure enhanced well-being for your animals by providing them with an enriched environment.



What is environmental enrichment?

One source of environmental enrichment is any resource that increases the animal's chances of coping better with its environment: this could be a sensory, structural, social or nutritional resource.



Beef Cattle





Environmental enrichment for beef cattle

Enriched environments are not yet widely provided in beef cattle-raising systems, but are of the utmost importance. Which is why Marfrig would like to help you learn how to do this

Tips for enriching the environment for beef cattle

Did you know that providing shade, whether natural or artificial, is one form of environmental enrichment?

That's right - it is! Sunlight and heat disrupt the animals' thermal comfort.

If you provide shade for the animals you will make their environment much more comfortable (Figure 1), helping boost their feed efficiency and reduce their water intake.

On feedlots, one alternative for environmental enrichment is to provide brushes (Figure 2), since this encourages the animals to self-care and mitigates the incidence of aggressive or abnormal behaviors.



Figure 1 - Feedlot provided with natural shade.



Figure 2 and 3 - Brushes for the cattle.

Dairy Cattle





Environmental enrichment for dairy cattle

Environmental enrichment is a widely employed strategy in dairy cattle raising operations. The main advantages have to do with the thermal environment.

Tips for enriching the environment of dairy cattle

Here are some recommendations about environmental enrichment for dairy cattle:

- **Natural and artificial lighting**
- **Bedding**
- **Fans**
- **Sprayers**
- **Misters**
- **Brushes**



Figure 1
Brushes for dairy cows.



Figure 2
Bedding and fans for dairy cows.

Sheep





Environmental enrichment for sheep

As with dairy cattle, environmental enrichment is not very well known in the case of sheep. Types of enrichment providing heat comfort are the most easily accessible.

Tips for enriching the environment for sheep

Here are some recommendations about environmental enrichment for sheep:

- **Natural and artificial lighting**
- **Shelters**
- **Access to natural pasture**
- **Materials for scratching**



Figure 1
Natural shade for sheep.



Figure 2
Artificial shade for sheep exploiting solar panels.

Pigs





Environmental enrichment for pigs

The post-weaning phase of pig-raising is highly challenging for piglets, which is why sensory enrichments are so important.

Tips for enriching the environment of pigs

Sensory enrichments, if employed correctly, can improve pigs' lives; but they need to allow the pigs to investigate, manipulate, chew and swallow them. Effective examples of enrichment for use on pig farms include:

- **Straw bedding (could also be peanut shells or hay)**
- **Fresh forage**
- **Bales of hay/straw given in hanging feeders**

There are also manipulable and chewable objects such as:

- **Sisal ropes**
- **Wood**

It is important to rotate among a range of sources of sensory enrichment.



Figure 1 - Animals with access to straw bedding.

Fish





Environmental enrichment for fish

In fish-breeding, the structural, sensory and nutritional sources of enrichment are highly beneficial for the well-being and quality of life of these animals.

Tips for enriching the environment of fish

People are not aware of environmental enrichment for fish, and it is mostly employed in the setting of the commercial raising of species. Fish require an environment that mimics the complexity of the natural environment. Certain adaptations are needed in order to provide environmental enrichment.

Effective examples of enrichment for use with fish include:

- **Shelters**
- **Substrates (for example: rocks and sand)**
- **Occupational activity (water flow and water stream)**
- **Structures (for example: plants, cover, shade)**

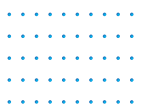
Providing enrichment for these animals enhances the expression of species-specific behaviors, reduces aggressive interactions and stress reactions to handling routines, and can encourage activity, boost feed consumption and improve growth rates.



Figure 1
Covering for fish nurseries.



Figure 2
Substrates for tilapia.



Poultry

(broilers and laying hens)





Environmental enrichment for poultry

For poultry – whether broilers or egg-laying birds – environmental enrichment is of the utmost importance, because in the current scenario the use of such resources can avoid low levels of physical activity among the birds and high levels of humidity and ammonia in the litter, and can mitigate symptoms of claudication of differing levels of severity, occurrences of dermatitis, breast and hock lesions, and cannibalism.

Tips for enriching the environment of poultry

Several means of providing structural, nutritional and sensory enrichment have been investigated in order to mitigate the problems inherent in these raising systems. These types of environmental enrichment include:

- **Shelters**
- **Perches**
- **Platforms**
- **New materials for the animals to peck/investigate (e.g., small bales of hay, brightly-colored plastic bottles and balls, toys, mirrors and even lasers)**
- **Easy access to the outside area**



Figure 1

Hens with access to the outside area.



Figure 2

Chickens with access to platforms.



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