



POULTRY LITTER

AIM: TO PROVIDE INFORMATION ON THINGS TO CONSIDER BEFORE FEEDING POULTRY LITTER TO DAIRY CATTLE.

! REMEMBER: There is no standard formula for poultry manure, so you never really know what you are feeding to your animals.

What is poultry litter?

- ✓ Poultry litter is the waste bedding from poultry houses.
- ✓ It includes droppings, bedding (e.g. sawdust, maize bran) and uneaten feed.

Why do some farmers feed poultry litter to their cows?

- Poultry droppings include chemicals (uric acid and ammonia) which the bacteria in the cow's stomach can use instead of protein. These chemicals are referred to as Non-Protein Nitrogen (NPN).
- Poultry litter may be cheaper than some other protein feeds.
- Poultry litter includes minerals.
- Poultry litter may be easily available.

So what is the nutritional value of poultry litter for cattle?

- The nutritional value of poultry litter can be affected by:
 - Composition of the diet of the birds (layers or broilers);
 - Type of bedding material and frequency of cleaning;
 - Litter processing and management;
 - Number of birds and duration of birds on bedding material;
 - Moisture content which is affected by climate, ventilation in houses, diet of birds and condition of storage.
- This is why it is *difficult to know the nutritional content of the litter*.

Good practices when producing poultry litter

- Use good practices to make sure litter is hygienic and safe to feed to animals.
 - ✓ Remove dead birds immediately to prevent contamination with *Clostridium* (the bacteria that causes *botulism*).
 - ✓ Record all medicines given to birds. Do not feed litter with medicine residues to livestock. See *fact sheet M04 for more information on avoiding residues in milk*.
 - ✓ **Sift** the manure to remove foreign objects and lumps due to moisture.
 - ✓ To remove pathogens and help dry the litter, you can:
 - **Deep stack** the litter 2 metres high for at least 3 weeks;
 - **Ensil** with whole or chopped pasture - kills pathogens and improves taste; or
 - **Heat or sun dry**.
 - ✓ **Store** the litter safely to stop it becoming moist / wet.



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Ensuring litter is safe to feed

! **REMEMBER:** As there is no standard formula for poultry manure, you never really know what you are feeding to your animals.

- It is advisable to have a crude protein analysis done on the litter.
- If nothing is known about the litter, use a **14 day withdrawal period** before animals are slaughtered. **Never give this litter to milking cows.**

Guidance if feeding poultry manure to cows

! *Vaccinate cows against botulism*, even if the litter was processed.

! Use very dry litter. Most bacteria and fungi cannot live in dry litter.

- Mix the litter with maize meal or molasses to improve digestion of ammonia.
- Poultry litter should be less than 30% of the ration based on Dry Matter content of all products.
- Feed at 1% of body weight once per day. Equivalent to 4.5-6kg/cow/day.

REMEMBER:

! **DO NOT** feed poultry litter unless you know it is safe and of good quality.

! **DO NOT** feed poultry litter to cows in their last month of pregnancy.

! **DO NOT** feed poultry litter to milking dairy cows.

What are some of the risks associated with feeding poultry litter?

Poultry litter:

- Is **not well balanced nutritionally** and needs a source of energy (carbohydrate, e.g. maize meal or molasses) to be utilised effectively.
- Is a **low-quality feed** that reduces production when included at high levels in the diet.
- Contains very low levels of vitamins, A and E. If litter is fed for a long time you may need to supplement animals with vitamins A and E.

The litter may contain:

- **residues of drugs** – can be secreted in the milk.
 - **soil** - eating too much soil can lead to impaction of the rumen.
 - **sharp or foreign objects** such as wire, glass or plastic.
 - **bacteria, toxins, fungi** – can make your cow sick and be secreted in the milk.
 - **medicines**, such as coccidiostats are **toxic to cattle** and can be secreted in the milk.
 - Poultry litter can predispose late pregnancy animals to **milk fever**.
- Contact your **local Veterinary or Dairy Extension Officer** for further information.

ZDTP is focused on supporting dairy farmers to improve their productivity, milk quality and linkages to urban markets. The views expressed in this publication are those of the implementers of the programme and do not necessarily reflect those of the New Zealand Government. For further information, please contact ZDTP on zdtpinfo@primeconsultants.net. Follow us on www.zambiadairy.com, Facebook (facebook.com/zambiadairy/) and Twitter (@DairyZambia).