



FEED PLANNING FOR MILK PRODUCTION

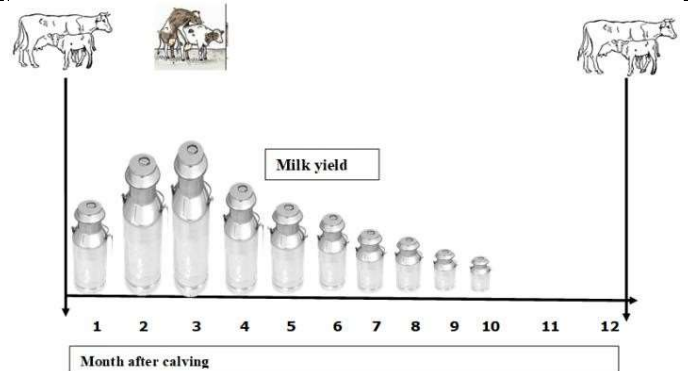
AIM: TO HELP FARMERS OPTIMISE MILK PRODUCTION BY PROVIDING GOOD QUALITY NUTRITION TO DAIRY COWS

1. Key requirements for all adult dairy cows:

- ✓ **Water** available at **ALL times**,
- ✓ Good quality forage (roughage) available at **ALL times** (including at night) – this helps the cow's stomach (rumen) to work properly.

REMEMBER:

1. Cows produce most milk during the first 3 months (100 days) after calving. So, give them the best feed during this time.
2. Each cow has a maximum amount of milk they can produce (genetic potential), e.g. Jersey could produce 20+ litres per day during the first 3 months, a local breed animal may only be able to produce a maximum of 6 litres per day.



2. Additional feed requirements for cows 'in milk'

- ✓ Cows need **at least 20 – 30 kg** of fresh forage or green silage per day to produce 4 – 8 kg of milk per day – *measure with weighing scale (see photo)*.
- ✓ Give **high yielding cows concentrate** / dairy meal (19% Crude Protein) during the first 100 days (3 months) after calving.
- ✓ If your cow has the 'potential' to produce 20 kg or more of milk per day (*see note above about 'genetic potential'*), 8kg of concentrate can help them achieve this. *See table on page two.*



!! REMEMBER: After peak yield (100 days), milk production will naturally decrease every day. Concentrate feeding is not as important after 100 days. If you are feeding concentrate after 100 days:

- ☺ Reduce the amount;
- ☺ Use a lower protein content (e.g. maize bran);
- ☺ Ensure it's affordable. Is it producing sufficient milk to make it worthwhile? If not, stop feeding the concentrate as milk production will reduce anyway (*see graph above*).

PRACTICAL FARM ADVICE F06



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LACTATION STAGE	DAILY CONCENTRATE (Kg)	COMMENTS
FIRST 100 DAYS	Increase from 2 Kg to 8 Kg during the first 2 weeks, then give 8 Kg per day (4 Kg AM and 4 Kg PM)	Slow increase of concentrate dairy meal with 17-19 %CP (Crude Protein). Cow should produce 20 Kg of milk per day before 100 DAYS
100 – 200 DAYS	4 Kg Maize Bran (2 Kg AM and 2 Kg PM)	See comments on page one about benefits of concentrate feeding after 100 days

3. Reducing feed costs

- ✓ Feed **good quality** feed – cattle will want to eat it!
- ✓ Feed in a hay rack or trough (i.e. not on the ground) -- **cows don't like dirty food!** - see fact sheet F03 (reducing feed wastage).
- ✓ Use as much **local** fodder as possible: natural pastures, green maize, straw / hay from soya bean, ground nut and other seed production.
- ✓ **Produce fodder in the wet season** for preservation and feeding in the dry season – see fact sheets F01, F01A, F01B and F01C.
- ✓ Use or store crop residues and **improve their feed value**, e.g. treat stovers with molasses or urea - see fact sheet F01B.
- ✓ **Make your own** concentrate (D19 equivalent) from soya beans or sunflowers mixed with maize bran – see fact sheets F02, F02A and F02B.
- ✓ **Feed concentrate 'strategically'** prioritising the first 100 days.

4. Planning

- ✓ Farmers are more efficient if they **PLAN** for their animal's nutrition.
- ✓ Make a fodder budget and estimate the needed fodder per month – see fact sheet 06A which gives more information on this suggested feed plan.

Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Natural pasture		Supplement natural pastures (now low feeding value) with green crops such as Napier, maize or sorghum. Silage could also be used if in store from last years' production.					Silage (or hay) produced during the wet season will now be the only available fodder on farm for dairy cows as the natural pastures now are of no nutritious value.				
60 days		150 days					150 days				

REMEMBER to consider:

- ✓ Number of animals and life stage (calf, heifer, adult).
- ✓ Calving dates – most milk is produced during the first 100 days!
- ✓ Production strategy and yield target.

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 zdtinfo@primeconsultants.net. Follow us on www.zambiadairy.com, Facebook (facebook.com/zambiadairy/) and Twitter (@DairyZambia).