



University of Idaho
College of Agriculture
Cooperative Extension Service
Agricultural Experiment Station

Current Information Series No. 296
July 1977

LIBRARY

MAR 6 1984

UNIVERSITY OF IDAHO

Feeding Dairy Goats

Edward A. Fiez, Extension Dairy Specialist

Goats have been "pictured" as garbage disposals in the past, rapidly consuming anything and everything from tin cans to old shoes. The modern dairy goat is highly efficient in converting feeds to milk and meat. Fallacies of the past must be cast aside in favor of well planned feeding programs that challenge the goat's genetic ability to produce. Providing nutrients for growth, reproduction, and milk production — the major goals of a dairy goat feeding program — will be discussed in this publication.

Ruminants (cud chewers) — cattle, sheep and goats — have a complicated digestive system consisting of a 4-compartment stomach. They can digest large amounts of roughage because of the large capacity of their digestive tract, the digestion of feeds by bacteria and protozoa in the rumen, and mechanical breakdown of feeds by rechewing.

Dairy goats can adequately digest a wide variety of feeds. Rations for dairy goats and dairy cattle are similar and should include grains, pasture, hay, and silage. Roots, browse, and garden refuse can also make up a part of the ration. Care must always be taken to avoid feeding material containing pesticides, insecticides, or other chemical residues.

Roughages should provide the bulk of the ration for dairy goats because they provide low cost nutrients for growth and milk production. Grains are added to the ration as needed to provide additional energy and protein during growing periods and lactation (milking periods). Concentrates also can be used to supplement low quality and/or low protein roughages.

Home mixed or commercially prepared concentrates are adequate for goats of all ages. Minerals, vitamins, and salt should be added to home mixed feeds. Commercially prepared dairy mixtures contain adequate levels of these compounds.

FEED FOR DAIRY GOATS

CONCENTRATES (energy feeds): Barley, oats, corn, bran, beet pulp, milo, wheat, and triticale.

CONCENTRATES (protein feeds): Peas, beans, cottonseed meal, soybean meal, and linseed meal.

ROUGHAGES: Pasture (legumes, grasses), hay (alfalfa, grass, cover), silage (alfalfa, grass, corn), roots (sugarbeets, etc), and garden refuse.

COMMERCIAL FEEDS: Dairy cow milking concentrates, mineral mixtures, vitamin mixtures, calf starters, and milk replacers (calf or lamb milk replacers):



Growing dairy goat kids require high quality feeds.

KID FEEDING

BIRTH TO 3 DAYS Kids should receive colostrum (first milk high in nutrients) the first 2 to 3 days after birth. Kids can be allowed to nurse or be taken away from their dams and hand fed colostrum. Be sure they get this colostrum the first few hours after birth. Soft drink bottles equipped with baby nipples are satisfactory for hand feeding. Experienced goat dairymen prefer training the young kids to bucket or pan feeding. This method is faster and utensils are easier to clean and maintain.

3 DAYS TO 6 WEEKS Begin feeding kids $\frac{1}{2}$ pint of milk 3 to 4 times a day. Gradually increase the amount to 5 pints per day the first 6 weeks.

Whole milk or replacer can be used for kids. Milk replacer can be substituted for whole milk after the first week. Blend the replacer with whole milk the first few days to avoid digestive upsets. Gradually eliminate the whole milk. Milk replacer, fed by directions, will provide the nutrients for ample growth.

Provide fresh water and high quality legume hay for growing kids. Calf starter or rolled grain should be fed daily. These feeds will help to develop ruminant activity. Kids should begin ruminating (chewing cud) during the first 3 to 4 weeks of life.

Trace mineralized salt should be available at all times and for all ages.



6 WEEKS TO 4 MONTHS Kids usually receive milk until they reach 4 months of age. If ample milk is available, weaning may be postponed until 6 months of age. Roughages and concentrates should make up the majority of the diet. Commercial calf starters or heifer mixtures can serve as the concentrate. Cereal grains are adequate, provided roughages are of high quality.

4 MONTHS TO BREEDING Roughages are usually adequate for normal growth during this period. Low quality roughages and/or low protein roughages — such as grass pasture, grass hay, or corn silage — should be supplemented with a 12% to 14% protein dairy mixture. Growing dairy goats should be kept in good flesh but not overly fat.

MILKING DOES

Rations for milking does should contain 12% to 14% crude protein. The nutrient requirements are greatly increased during lactation. To encourage maximum milk yield and prevent excessive weight loss, feed 1 lb. of grain for each 3 lb. of milk produced. (1 gallon of milk equals 8.6 lb.)

High quality alfalfa hay or pasture will provide the needed protein. Many dairymen blend a commercial dairy grain 50:50 with rolled oats, barley, or cracked corn for lactating goats. A 14% to 16% protein mix is needed with low quality roughages.

DRY MATURE DOES & BRED DOES

The last 6 to 8 weeks prior to kidding is important nutritionally in goat husbandry. High quality roughages should provide the basic nutrients. A few pounds of grain (2 lb. maximum) can be added to the roughage for young does and mature does needing more flesh. Over fat does are more prone to health problems during kidding and early lactation; therefore, avoid excessive grain feeding during the dry period.

Dry does need plenty of exercise; provide pasture if space permits. Locating the drinking water away from the feed manger will encourage the goats to exercise.

HERD BUCKS

Roughages usually provide the needed nutrients for herd bucks. Concentrates may be added to the ration to increase energy during the breeding season. Avoid getting herd bucks too fat.

MINERALS

Calcium and phosphorus are the most important minerals in dairy goat rations. Commercially prepared feeds provide adequate amounts of these minerals. Provide minerals free choice to goats of all ages. A mixture of 50% trace mineralized salt and 50% dicalcium phosphate (calcium + phosphorus) is a suitable mineral. Commercially prepared mineral mixtures are also adequate for dairy goats.

SUMMARY

Dairy goats can and will economically produce milk. High quality roughages fed to all age groups provide the needed nutrients at the least cost. Rations containing low quality feeds should be properly supplemented to provide the required nutrients. Grain must be added to the diet of heavy milking does to supply extra energy. Always make available clean, fresh water for all age groups — especially lactating does. Your effort in planning a sound feeding program will result in maximum growth and production.

FEEDING GUIDELINES--From Birth to Maturity

BIRTH TO 3 DAYS: colostrum milk.

3 DAYS TO 6 WEEKS: milk or replacer (5 pints maximum), alfalfa hay, calf starter, or rolled grain, water, minerals.

6 WEEKS TO 4 MONTHS: milk or replacer (5 pints maximum), alfalfa hay, calf starter or rolled grain, water, minerals.

4 MONTHS TO FRESHENING: roughages, grains (1 to 2 lb. with low quality roughages), water, minerals.

MILKING DOES: high quality roughages, grain (1 lb. to each 3 lb. milk), water, minerals.

DRY DOES (pregnant): roughages, grain (2 lb. maximum, if needed), water, minerals.

BUCKS: roughages, grain (1 to 2 lb. during breeding season, if needed), water, minerals.