Performance Recording

Animal identification

A prerequisite to performance testing is proper identification of animals. Ear tags and tattoos are the most common forms of ID for meat goats. Assign each herd member a unique and permanent ID number. Assign ID numbers to kids at birth when collecting early data such as birth weights, litter sizes, and neonatal deaths. Newborn kid data need to be matched with the correct doe. In herds with many does kidding together on pasture or range, it can sometimes be a challenge to tell which kids belong to which does. Rejected kids, early newborn deaths, and the occasional swapping of kids by does make it important to properly and adequately ID kids soon after birth, preferably within 12-24 hours.

Body Weight

Primary traits to record in a meat goat herd are the number of kids born and weaned for each doe exposed to bucks, kid birth and weaning weights, and dam weight at weaning. Birth weight is the starting point to determine preweaning growth rate. Recording birth weight also facilitates recording the birth date, identification of the dam, and tagging the newborn with a unique ID number. Record newborn weights within 24 hours of birth. Record weaning weights at around 90 days of age. Weaning weights are usually recorded on one calendar date for a group of kids that vary in ages. The ages within a contemporary group of kids at weaning should deviate from 90 days by no more than 22 days (i.e. 68-112 days). It is also useful to weigh the dams when the kids are weaned. Dam weights are used to calculate the efficiency of doe production.

Kid Evaluation

Because ages vary in a contemporary group of kids at weaning, weight comparisons can be biased. A 77-day-old kid cannot be expected to weigh as much as a 112-day-old kid. Therefore, weaning weights are converted to a standard 90-day age basis.

Two equations are used to generate 90-day weights.

First calculate average daily gain (ADG):

ADG = (wwt - birth wt) / weaning age

After the average daily gain is determined, the

second equation gives the 90-day weight:

90 Day Weight = (ADG x 90) + birth wt.

An additional step is generating weaning weight ratios. Within each sex group, individual kid weights are compared to the group average (*CGS contemporary group size)* to produce ratios for relative evaluations. Ratios show the deviations of kid weaning weights from the contemporary group average.

90 day group avg. = all the weights from the group added together, divided by the number of kids in that group

A ratio is calculated with the following equation:
WWT Ratio = (90 day kid wt /90 day group wt average) x 100

A ratio of 100 is equal to the group average. A kid with a weight ratio of 122 is 22% heavier than the group average. Conversely, a kid with a ratio of 91 is 9% lighter than the group average.

(Continued on page 2)

Birth Wt.	90-d Wt.	Ratio	CGS	LSW	180-d Wt	Mgt	D.O.B. of Dam

Individual performance (on all certificates)

(Continued from page 1)

Contemporary Groups *(CGS)*

A contemporary group is a set of meat goat kids born and raised together under uniform conditions. Performance testing for genetic evaluation requires factors like age, nutrition, and location to be equal for all kids. Kids in a contemporary group are born within a 45-day period and managed together from birth to weaning. Dams should also be managed similarly to weaning. Data from kids born outside the 45-day window or managed differently (e.g., kept in separate pastures) are excluded from the group, but could form their own second contemporary group if born within a 45-day window and managed under the same conditions.

Litter Size at Weaning *(LSW)*

Litter size can affect weaning weight. On average, weaning weights decrease as litter size increases. Record the number of kids weaned. Artificially-raised kids are not credited to the dam for weaning litter size or weight. In cases when a doe adopts a kid from another doe, the adopted kid can be credited to the 'foster' dam for weaning data.

Management (*Mgt.)*

1) Forage only - ***IKGA's Definition of Forage Only"***

2) Forage based - The use of protein blocks, tubs or licks only.

3) Partial supplementation - The occasional use of grain or other concentrated feeds to offset drought, poor hay quality or for examining animals.

4) Supplemented – The use of grain or other concentrated feeds as a daily or weekly ration.

Age of Dam *(D.O.B. of Dam)*

The age of the dam can also affect weaning weight. In most cases young does wean lighter kids than mature does.

Doe Evaluation

For each dam, add the weights of all kids she weaned. Actual or 90-day weights can be used for doe evaluations. Actual weights are preferred because they credit the ability of does to breed early and raise kids for a longer period of time, weaning off more weight on average compared to does bred later in the season.

Zero (0) is recorded for litter weight weaned of does not weaning a kid. Litter size at birth and weaning should be assessed for each doe. After two or three production years, a certain average number of kids weaned by does should be expected such as 1.5 kids weaned per buck exposure. Litter size expected will vary by farm and production system. *(1.5 kids is used as merely an example of a herd objective.)* Doe production efficiency can be measured by how much total litter weight a dam is able to wean relative to her own body weight. The following equation provides the efficiency of doe production:

Doe Production Efficiency = (litter wwt / dam wt at weaning) x 100.

Dam Reproductive record (on back of doe certificates)

DAM REPRODUCTIVE RECORD						
Kidding Date	**Number of Kids Born**	**Number of Kids Weaned**	**Total 90d Kid weight**	**Mgmt**	**Dam Efficiency**	**Service Sire ID/Breed**

For each doe exposed to the buck, record the number of live births and the number of kids weaned. Note stillborns in a doe's file, but do use them for litter size and they need not be weighed. Artificially-raised kids are not credited to the dam for weaning litter size or weight. In cases when a doe adopts a kid from another doe, the adopted kid can be credited to the 'foster' dam for weaning data.

Sire identification is also important in tracking performance. For Kiko bucks record the 5 digit permanent ID, for others list the breed.

IKGA's Definition of Forage Only"

Grass (Forage) Fed – Grass and forage shall be the feed source consumed for the lifetime of the ruminant animal, with the exception of milk consumed prior to weaning. The diet shall be derived solely from forage consisting of grass (annual and perennial), forbs (e.g., legumes, Brassica), browse, or cereal grain crops in the vegetative (pre-grain) state. Animals cannot be fed grain or grain byproducts and must have continuous access to pasture during the growing season. Hay, haylage, baleage, silage, crop residue without grain, and other roughage sources may also be included as acceptable feed sources. Routine mineral supplementation may also be included in the feeding regimen. If incidental supplementation occurs due to inadvertent exposure to non-forage feedstuffs, the producer must fully document the supplementation that occurs including the amount, the frequency, and the supplements provided.