

The Madams

*Dr Charles F. Parker
Honorary Member, KHSI*

Lets hear it for the "hard working" ewes---the MADAMS of your flock!

Every flock has a few of these ewes mixed among the many others. Few breeders recognize just how hard these elite ewes are working or how important they are. This article is about finding the "hidden madams" and how best they can be used to improve your flock.

First lets define "hard workers." These are the ewes that yearly produce the most pounds of quality lamb for market, those genetically superior and well adapted to their environment and flock management – the true production unit profit makers! They are fertile, prolific, easy lambers, good mothers and milkers, rear a high percentage of lambs born and yield the heaviest litter weights at weaning. Ewe productivity (EP), is unquestionably the most important economic trait for meat sheep production in the 21st century!

What do these madams look like? They come in small, medium and large sizes; some have long plain looking heads others are short stylish/well proportioned; body form can be compact to rangy; some have strong level top lines while others are droopy topped with level rumps; they may stand on post legs, be cow or sickle hocked or structurally balanced with strong pasterns. In other words, they can look like any other ewe in your flock. Yet with all these different looks, the madams have one characteristic in common---excellent ewe productivity! Bottom line, hard working meat

producing ewes are commonly the "hidden ones" in the flock. They cannot be recognized by their appearance but can be accurately identified from learning about their performance.

Body size, growing ability, soundness, body conformation, degree of muscling are traits of interest in producing uniform quality meat products but are not highly genetically related to ewe productivity. In some cases when these appearance traits are selected to extremes, they can have strong negative affects on the components of ewe productivity. This detrimental relationship has also been observed for other livestock species.

If looks are deceiving, how do we identify the madams?

Fortunately 20th century genetic research and electrical engineering technologies have provided 21st century sheep raisers with the most powerful selection tools ever to identify genetically superior animals and display their performance in a user friendly way. All Katahdin breeders have access to the National Sheep Improvement Program (NSIP). This program is well designed/tested to evaluate individual performance across

flocks so breeders can identify the best genetics available within their flock and breed on a common basis of comparison. More importantly, in 2004 researchers at Virginia Tech using Katahdin data from producer flocks on NSIP developed an Expected Progeny Difference (EPD) analysis for percentage of lambs raised and total litter weight at weaning (the ewe productivity trait, EPT). Katahdin breeders are the first to have EPD/EPT information available. Now we can find those hidden ones, approximately one eminent madam out of every ten ewes in your flock. This is a major technological advancement for the Seedstock sector of the U. S. sheep industry.

Now that we can find them how do we best use our madams?

First, lets consider the aspects of flock improvement through selection. Ram selection has been credited with changing flock performance by 70-90 percent for most heritable traits. This potential is achieved by selection intensity (percentage retained for breeding) and breeding rate (ewes per ram) where fewer rams than ewes need to be selected for breeding and can be used over years during a ram generation.

Limited recognition/appreciation has been given to the genetic importance of the ewe because she provides so few lambs in comparison to a breeding ram during her tenure in the flock. Note, one breeding principle provided by Robert Bakewell in the 18th century that has passed the test of time is "breed



"Twins"

*Photography by Cathy Stahlman, IA
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Second Place - Best Promotion of Katahdins*

the best to the best." Question, can breeders create superior rams from just any ole ewe? Obviously not! Ram selection intensity and breeding rate are important during the years of ram use but breeding value of a ram at a giving point in time is EQUALLY dependant on the average breeding value of both parents!

Finding/using distinguished MADAMS as mates with outstanding sires is the only way to create superior young sires---thus "mating the best to the best" to create better offspring for the next generation. It has been interesting to study NSIP records and learn that the highest EPD values for the madams are as good and generally superior to those of the

rams chosen as breeding replacements. Ram generation interval can additionally be shortened when superior young sires can replace lesser valued older ones. This turnover is directly dependant on using superior breeding value ewes as mates to create the outstanding young sires.

Through modern performance evaluation methodology ewes and rams can be found that will contribute significantly to more rapid improvement of lamb meat production. For those interested in efficient production, acquiring quality genetics is clearly a blue chip investment for the sheep enterprise in this century.

The next generation of young "best sires" in the Katahdin breed

depends on the mating the "best" rams with yet "even better" madams---possibly ones in your flock! Get to know your MADAMS, they are the hard working, hidden ones that can make a difference!

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