

Breed Abbreviations - Definitions

FLOCK PREFIX - A two or three letter alphabetical code, unique for each breeder that registers Katahdins or records Katahdin crosses with the KHSI Registry.

EXP - Indicates a KHSI Breeder that will export sheep.

S - Has sheep for sale during the year. This listing is updated one time per year.

NSIP - National Sheep Improvement Program (a national [performance evaluation](#) program evaluating the performance of Katahdin flocks in the USA & Canada)

OVISSEY - Software program that helps with [performance evaluation](#) and flock management

FLOCKMASTER - Software program that helps with [performance evaluation](#) and flock management

SFCP - Scrapie Flock Certification Program - A USDA-APHIS program that helps with identifying and certifying flocks with low scrapie risk.

WCFHP - Western Canadian Flock Health Program - A comprehensive health program that helps with identifying flocks and farms/ranches with good to excellent biosecurity and flock health management.

OPP - Ovine Progressive Pneumonia or Maedni Visna - This only indicates that the breeder has/does some testing. Effective testing requires a rigorous protocol. (See discussion below.)

FUTHER DISCUSSION OF ABBREVIATIONS AND DEFINITIONS

OPP - Ovine Progressive Pneumonia - Note - The presence of the OPP designation means that the breeder has done at least a minimal amount of testing for OPP in their animals. It does not indicate their flock is free of OPP. You will need to ask for their testing protocol. Because of the nature of the disease, its slow onset, variable expression of the symptoms and veterinary tests that can not detect early stages of infection, it is hard to definitively state that a flock is OPP free. For this reason, it is up to the buyer to ask how often and what kind of OPP testing protocol the seller has utilized and whether it is sufficient for the buyers needs. Some protocols require that the breeder tests every sheep every year.

a) It typically requires that an animal be two years of age for a test to be able to detect presence of antibodies to the disease. Some animals may never express the presence of the antibodies to the virus, even though they carry the virus.

b) Information about the disease, its effects, tests and management recommendations are

considered controversial by some Professionals.

c) This disease is caused by a virus which is in the family of slow viruses that is often referred to as the Maedi-Visna virus. The disease usually takes 2 or more years for symptoms to occur and some animals may never express symptoms even though they may be carrying and spreading the virus. The symptoms when they are expressed in a flock may have extensive economic impact. Infection with the virus can lead to no detectable symptoms, loss in general body condition (thin-ewe syndrome,) hard bag (low to non-existent milk production from both sides), arthritis, central nervous system, decrease in respiratory function (hardening of and loss of oxygen exchange tissue). Many of these symptoms severely decrease the ability of the sheep to be productive or economically viable. Other animals exhibit minor complications. The presence of a ewe with hard bag will result in lamb death unless the shepherd bottle feeds the lambs.

d) The two main tests for OPP both indirectly detect the virus by assaying for the presence of antibodies in the blood to the Maedi-Visna virus. Indirect tests are not as effective as direct tests, but these are the only tests that are commercially available now. These tests are AGID (agar gel immuno diffusion) and ELISA (enzyme-linked immuno assay). Each test has strengths and weaknesses. AGID is less sensitive and is less effective at identifying animals with the virus. Thus, it is prone to false-negatives. The ELISA test is much more sensitive, but can indicate animals have the disease when they don't (false positives).

e) The virus spreads through the secretions of infected animals including milk/colostrum and respiratory fluids being the most prevalent means of spread. Vertical transmission from dam to offspring is common, but does not always occur. Research indicates that the virus can also spread laterally throughout the flock in confined barns.

f) Veterinary professionals offer mixed advice about testing and culling OPP positive animals. Most will advise testing and culling of all positive animals. Others will advise that shepherds cull only those animals that economically impact your production because of the lack of correlation between infected animals and symptoms, lack of a definitive test and the need to test animals multiple times over the course of multiple years to be fairly certain that they don't have the disease. At the least, be aware of the disease, test and cull animals for slaughter that exhibit symptoms. Finding positives OPP cases in your flock warrants important decisions about testing and culling. If you have animals that are wasting and show no signs of bacterial infection, testing and then culling OPP positive animals is probably warranted. If you have animals that exhibit hard bag, testing that ewe for OPP is warranted. Because of vertical transmission from dam to offspring, it is advisable to test progeny, siblings and the dam of OPP positive animals. Ask for the advice of knowledgeable veterinarians or contact the OPP Concerned Sheep Breeders Society at the address listed below.

g) OPP/Maedi-Visna Status Pilot Project (MVFSPP) as developed by the Canadian Province Of Ontario - Note the different levels of testing.

Level A: Whole flock has tested negative for Maedi-Visna on three full flock and one partial flock tests, while following requirements of MVFSPP

Level B: Whole flock has tested negative for Maedi-Visna on two tests (~6 months apart), while following MVFSPP requirements

Enrolled (neg): Whole flock has tested negative for Maedi-Visna on one test, while following requirements of MVFSPP

Enrolled: Whole flock tested once for Maedi-Visna

Monitored: Portion of flock tested for Maedi-Visna

h) Links to OPP sites:

<http://www.ontariosheep.org/MVFSPP.HTML>

Ontario Province Of Canada - Ontario Maedi-Visna Flock Status Pilot Project

<http://www.oppociety.org/>

OPP Concerned Sheep Breeders Society, 11549 Hwy 25 SW, Watertown, MN 55388, 952-955-2596, hollyneat@juno.com

http://www.cvmbs.colostate.edu/dlab/webdocs/ext_vet/cleon11.html

Colorado State Extension Web Piece on OPP

OPP Summary & Information Provided by James Morgan, PhD

FLOCK PREFIX - The KHSI flock prefix is composed of two or three alphabetical characters unique for each KHSI breeder/membership. It enables each sheep in the KHSI database to have a unique identification number for the tattoo or eartag identification. The KHSI Registry requires a unique prefix for all breeders registering Katahdins. A prefix has been required since 1993.

HEALTH PROGRAM - At this time two health programs are identified. SFCP & WCFHP

SFCP - Scrapie Flock Certification Program - Previously known as VSFCP (Voluntary Scrapie Flock Certification Program). This program is administered by the state offices of USDA-APHIS (United States Department of Agriculture - Animal Plant Health Inspection Service). After five years, of enrollment and successful completion and maintenance of the protocol, the flocks are certified free of scrapie. Briefly, the protocol consists of a) maintaining accurate records of sales and movement of animals in the flock and b) not exposing ewes in the flock to ewes of

<http://www.aphis.usda.gov/vs/naahps/scrapie/free-certi.html>

WCFHP - Western Canadian Flock Health Program - This is a very comprehensive health program in which flocks may participate at different levels. Designations vary by the level of biosecurity practiced by the shepherd and farm AA, A, B, C. Farms or ranches designated AA implement a very strict biosecurity program. Most flocks that participate in this program are in the province of Alberta.

<http://www.absheep.com/wcfhp.htm>

PERFORMANCE PROGRAMS

Performance programs use mathematics and genetics to predict relative genetic merit of an animal and its ability to pass this information on. The performance programs currently in use by KHSI Breeders include NSIP, OVISSEY and Flock-Master. Each program has its own strengths. Other programs available to sheep breeders in North America include Ontario Sheep Improvement Program, EweByte and Lamb Plan.

All performance programs that provide Expected Progeny Differences (EPDs) or Expected Breeding Value (EBVs) are doing similar evaluations. There can be major differences in how they are applied, the scientific rigor used in managing the programs and whether the provided information can be used to compare performance in multiple flocks. (Inquire before buying animals evaluated by these programs).

Performance Evaluation programs include the evaluation of the performance of relatives this greatly increases the ability to determine how the genetics of an individual animal related to performance. Mathematical evaluation of the offspring of 20 lambs out of each sire provides a more statistically significant value for a sire. It helps breeders cull those non-performing favorites and find those animals that are prolific or grow or milk well.

Some Performance Programs provide cross-flock evaluation. These are particularly useful because they compare performance of sires used in different flocks. A good cross-flock evaluation factors out the environment/management differences a sire line that performs well on multiple farms is rewarded. Sire lines that perform well only in the best environments with the best feed are not rewarded by superior values.

NSIP - NATIONAL SHEEP IMPROVEMENT PROGRAM - This program uses complex statistics and genetic models to predict performance of offspring of animals in the program on multiple farms. When used in the $1/2$ cross-flock $1/2$ program, it can effectively determine performance of animals on different farms and factor out differences in management (nutrition) and environment. The animals are ranked by their EPD (expected progeny differences). Currently, for Katahdins, NSIP determines EPDs for the following traits: a) 60 day weight, b) 120 day post-weaning wt, c) 60 day Maternal Milk, d) 60 day Maternal Milk + Growth and e) % lamb crop. Contact James Morgan, 18235 Wildlife Rd, Fayetteville, AR 72701, 479-444-6075, jlmm@earthlink.net

Future EPD traits for the Katahdin Breed include a) lbs lambed weaned/ewe/year (this will identify superior ewe lines) and b) FEC-EPD. Fecal Egg Count (FEC) will identify sire lines that have lambs with superior resistance to internal parasites. Katahdin involvement in NSIP is based on maximizing cross-flock performance evaluation.

OVISSEY - This is a software program developed in Canada that besides providing within flock genetic analysis of performance, is also a flock management program. Currently it is not comparing genetic lines on multiple farms, but will help the shepherd pick the best performing animals within their flock. Contact - Inthebarn Ltd.- RR3 High River, AB T1V 1N3, Canada, 403-652-2569 newman@cia.com