

FINAL REPORT

"Garlic Wormer Project"

FNE 94-46

GARLIC: THE NATURAL WORMER

received

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The goal of the project was to prove the validity and effectiveness of using garlic as an alternative parasiticide in sheep and goats.

The project was started with 6 collaborators, including myself. (I had already been using the garlic for 3 years prior to the grant). At the end of 2 years, only one person stayed with the program. She was impressed with the results and is now a garlic grower. The other gave it a try or two, but decided not to continue with it.

The process involved giving the collaborators enough garlic to worm their animals during lambing or kidding ~~and~~, during breeding season, and during the hot days of August when you're trying to finish off your lambs. They were given 1# garlic/6 animals to be fed over a 4 day period beginning on the full moon. It is a belief that the full moon has a stimulating effect on the parasites living in the animal to become more active. Fecal samples were to be taken before and after treatments.

Feeding garlic at these three specific times, coincides with stress times for the animals. And as in animals or humans a stressed organism is a weaker organism and a weaker immune system. Researchers have found that garlic is rich in selenium, a trace element which stimulates immunity factors in the body.

WORMING DURING LAMBING OR KIDDING: Infective larvae are picked up in the fall and winter over in the animals. The 2 weeks prior to freshening the

immune system breaks down and permits the parasites to develop. What I began doing in conjunction with garlic feeding, was to feed echinacea 10 days prior to freshening time to help build the immune system. Then I put them on the "garlic program" for 3 full moons. I figured the fed garlic would pass through the milky. I also put chopped garlic into the creep feed for longer intervals of time to get the little ones used to the flavor and help them with any parasite problems. I also give the ^{lambs} echinacea for 10 days and golden seal for 5 days prior to going out on pasture to prevent coccidia. The animals leave the barn with a negative fecal count.

AUGUST^o With the heat, full fleeces developing trying to finish off my lambs and most important the garlic harvest, I begin my 2nd period of the garlic program. Over the past 2 years I've been heaping the garlic ^{to them} at this time. I feed it until they don't want it anymore. The goats go crazy at harvest time. With the garlic coming into their barn to be dried, they can't get enough of it. Tests are negative after this time also.

BREEDING SEASON^o Sheep and goats are fed garlic in Sept., Oct., Nov. This also helps with flushing. Tests are negative in Nov. A neighbor of mine claims this is why my ewes have nothing but triplets and doubles. Hmmm, this could be

another project for me to study... "GARLIC, the fertility pill."


WEAK POINTS OF THE GARLIC PROGRAM:

Late June to early July, over the years, is a hard time for my lambs, and this is when I'm all out of garlic. I always have extremely high fecal counts and diarrhea in about 30% of my lamb crop.

I bring the lambs in to be crutched with the first case of diarrhea. (This also avoids fly strike)

I treat the lambs who are suffering the most, and then keep every one in the barn for 3 days and feed them wormwood. The ones who were heavily infested never seem to recover and thrive. I have been noting these lambs and not keeping them as replacement stock. I will now begin to cull ewes who produce lambs less resistant to parasites. Future plans are to invest research time into various herbs that I can give in the feed for the month of June.

Pasture rotation is a must for good parasite control. Mowing the pasture after they move on to the next, is a good practice if such machinery is available.

 ECONOMICS OF A GARLIC PROGRAM: At this point it is a costly one, unless you grow the garlic yourself. I suggest that you grow topset garlic, which will give you a good source of garlic animal feed. The animals love those tiny bulbils. Growing garlic for yourself, 30 animals and 20-30 cows

stock will require you to plant 20-30 lbs of garlic, depending on your soil fertility. This will require about 300-800 row feet.

Do I believe in garlic as a wormer and over all "keep-em-healthy" tonic? You bet! My adult sheep and goats haven't been treated with a parasiticide in over 4 years. I have a 200% lambing rate. The vet comes here to administer rabies vaccines only. But, there's still work to be done, always will be. I've ruled out worming with homeopathic treatments for the simple fact of having to chase the lambs 3x/day for 3 to 4 days. This stresses them out too much, thus you're getting nowhere. The key to being a good shepherd is keeping your animals calm, ~~well~~ well fed, ^{and} avoiding departures from the routine. The results will be a happy sheep and a happy shepherd.

This is my final report. It was to be a 3 year study, but since my collaborators fell through, there's no need to continue. Most of my collaborators got rid of their animals & the others just thought it was too easy to give them the paste wormers. Two new sheep growers have joined NOFA this year and I feel this study will be important for them, because parasiticides have changed from "regulated" to "prohibited" in the organic standards. There's no other alternatives so far, other than garlic.

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