

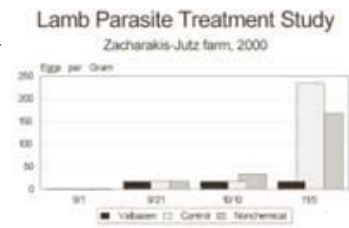
ZJ Farm Organic Wormer Project

Solon members **Jeff and Susan Zacharakis-Jutz** and their children maintain sheep and dairy goat herds that they raise using a minimum of synthetic chemicals. They find internal parasites to be one of the more difficult challenges to manage nonchemically. Jeff reports below on their second year of research on alternative treatments.

"At the end of August, 2000, we selected fifteen lambs off pasture and put them on a cement patio. We selected our smallest lambs because our heavier lambs were close to market weight and ready to sell. They were born in May, in our barn. Why did we wait until the end of summer to conduct the study? Our goal is to raise a natural lamb, which means that it is desirable to leave the lamb on the ewe and on pasture as long as possible. If we weaned the lambs early, say, after 8-10 weeks, it would defeat the purpose of our grazing program.

We gave Valbasin, a commercial wormer that is effective on tapeworm, to all lambs. We took fecal samples, but much of our decision to worm is based on body condition, and feces appearance. We probably don't worm as often as other flocks around here. We collected the first batch of fecals on September 1, one week after the initial treatment of all lambs.

Figure 6. The shady side of de-worming. Parasite egg counts in the three groups. Combined numbers of parasites in fecal samples: Moniezia (tapeworm), Trichostrongyles, Trichuris, Strongyloides, Nematodirus Black-Valbazen, Grey-Control, White-Nonchemical



On September 15, we divided them into three groups, a control group, a group that received Valbasin, and a group that received a nonchemical wormer and tonic sold by 7mFarm & Herbals, Mona, Utah. The natural wormer was administered every day for seven days, then once a week thereafter. For the study, the groups were kept in separate pens, on cement; however, they had nose contact between the pens, and rain could wash material from one pen to the other. We collected fecals seven days after the start of the trial, on September 21. We then collected fecals on October 10, and again on November 5 to complete our study."

As Figure 6 shows, parasite pressure was similar among the three groups until the last sampling period. The last samples show parasite eggs at levels suggesting some treatment might be advised in the control and the natural wormer groups. Since all animals were treated with the chemical just before the trial, it is likely that the residual effect of Valbasin kept differences between the groups from appearing until near the end of the trial. But it's not possible to say for sure. Jeff discussed with Dr. George Beran, ISU veterinary microbiologist, several things that can be done differently if the trial is repeated. First, do not pre-treat the lambs. Second, use younger (2-3 mos. old) lambs in order to focus in on the period of highest risk. Finally, if possible, link fecal samples to specific individuals using their ear tags.

Finally, on the question of treating the animals after this trial, Jeff responds:

"There were several reasons why we decided not to worm these study lambs in December. Typically worm pressure goes down in the winter, especially with this extreme cold weather. Also, we have several customers who are chemically sensitive; therefore when we worm we try to do it so there is as long of a withdrawal period as possible. Hence, if the lambs look OK, and seem to be steadily growing, we don't worm."