

**VMP 991-135**  
**Parasite Control in Sustainable/Organic Agriculture**  
**(1 credit)**

- [Dr. Bruce Hammerberg](#)
- [Dr. James R. Flowers](#)
- Classes: 2,3
- Focus Area Priority: None
- Minimum: 4
- Maximum: 8
- Spring Semester; Week 1; every year
- Meeting room: B104 Microscope Teaching Lab

Helminth and arthropod parasite control in livestock being raised under organic food regulations and/or the tenets of sustainable agriculture provide special challenges to the practicing veterinarian. This course provides the DVM student with practical exposure to the unique problems faced by the farmer working under the regulations of organic food production and/or the principles of sustainable agriculture. It also instructs the student in newly developing approaches to parasite control that do not rely on synthetic drugs.

There will be on-farm visits to a pasture-reared farrow-to-finish swine farm, grass-fed beef farm, and an organic dairy. Students will collect samples for fecal egg counts to determine the level of parasite control achieved under various management conditions. Students will interview farm managers about pasture utilization (including rotation and grazing history) stocking density, use of alternative parasiticides, breeding and replacement/finishing stock management, and animal health problems. There will be in-depth reading and review of publications about parasite control using alternative approaches to standard synthetic drug use.

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## **Field Trips**

Please bring clean boots and clean coveralls.

Please thoroughly scrub boots with disinfectant after each farm visit.

**\*\*\* For bio-security of the host farm --- Please do not visit  
any swine farms over the weekend \*\*\***

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## Schedule

### Monday, April 23

Meet in B104 at 9:00am. Introduction to course topics and Farm Visits.  
Discussion of sustainable agriculture practices.

Selective Assignment: Due by 5pm on Friday, April 27. Review publications pertinent to parasite control for each of the three livestock groups. For each farm visited, develop a report to summarize and analyze the parasite infections found, also discuss the risk of infection related to environment and management for each farm. If advisable, provide management suggestions for each farm.

### Tuesday, April 24

Leave CVM at 8:00 am for Minka Farms near Efland (Grass-fed Beef farm). Interview owners/operators, Kimberly & Brian Harry, and collect samples from pastures. Observe for signs of fly problems. Return to CVM teaching lab to analyze samples using a modified double centrifugation method. Discuss results.

### Wednesday, April 25

Leave CVM at 7:30 am for MAE Farm (A farrow-to-finish swine farm) near Louisburg. Interview owner/operator Mike Jones and collect fecal samples from sows, weaned piglets and finishing pigs on pasture. Observe for signs of mite infection and fly problems. Return to CVM teaching lab to analyze samples using McMasters Technique. Discuss results.

### Thursday, April 26

Leave CVM at 7:30 am for Reedy Fork Farm Dairy near Elon College. Interview owner/operator George Teague and collect samples from calves and heifers on pasture and in structures. Observe for signs of fly problems. Return to CVM teaching lab to analyze samples using a modified double centrifugation method. Discuss results.

### Friday, April 27

Complete and turn in written reports to be sent to each farmer.