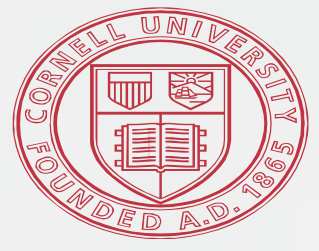


NYS Dairy Cattle Integrated Pest Management: Research / Outreach Addressing Dairy Industry Needs



Cornell University
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Recent and on-going efforts to enhance extension and improve access to dairy IPM information through: Face time, eTime, Educator time and Me Time....

Introduction: Cows get pests too!

- Biting flies, nuisance flies, cattle lice, mange mites and other external parasites adversely affect animal health, productivity and reduce farm profitability.
- Damage from arthropod pests has been estimated to exceed \$2.26 billion in losses annually.
- Knowing and using basic IPM techniques can make the difference in helping to minimize or avoid potential losses.



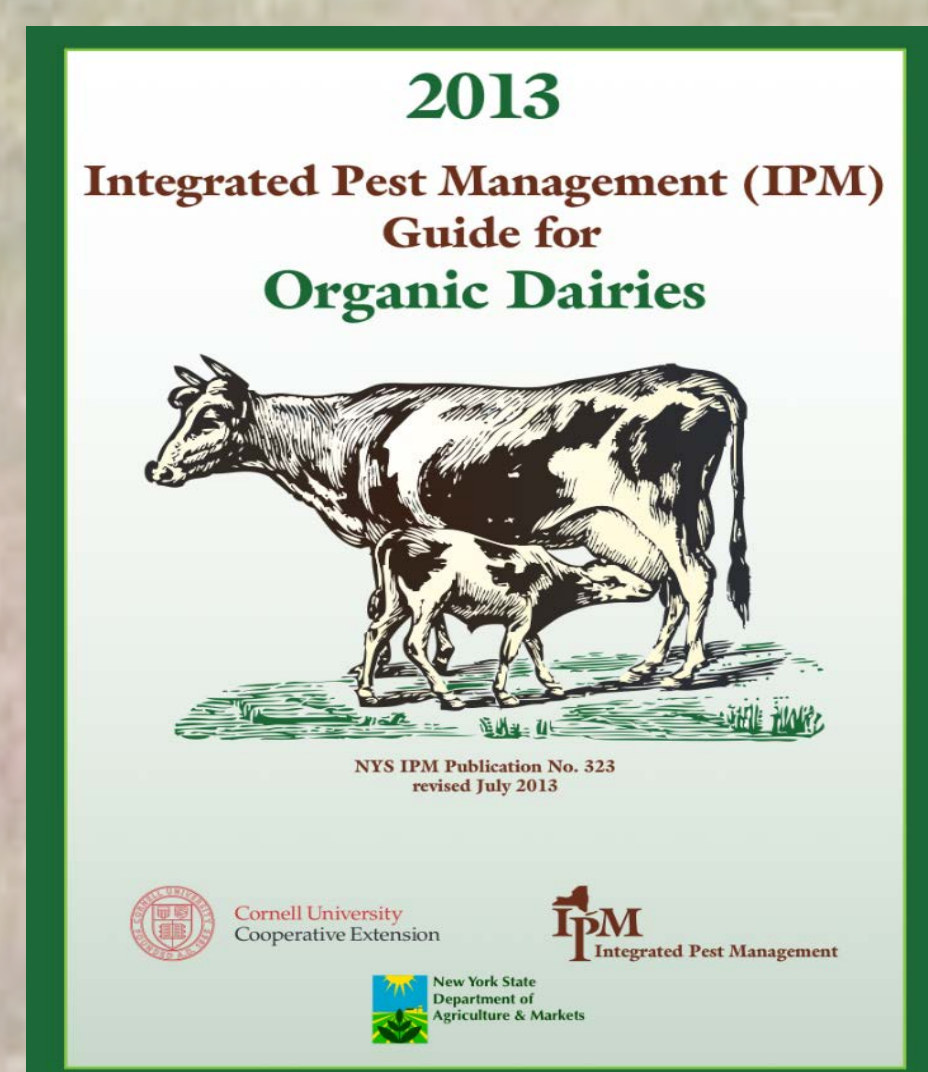
Dairy Fly Management Challenges:

- Reduced number of registered livestock insecticides.
- Documented widespread house fly and horn fly insecticide resistance.
- Dairy flies + suburban encroachment on rural agricultural landscapes: potential public health and neighborhood relation concerns?
- Decreasing number of land grant based veterinary entomologists conducting dairy cattle IPM and outreach.
- Producer "challenges": multiple-milkings / day, chores, cropping tasks, etc.

Face Time: On the farm, producer meetings, educational outreach

- Providing research-information and based IPM education to NY's 5,700 dairy producers and supporting ag industry personnel is a primary focus of our Cornell Veterinary Entomology and NYS Livestock IPM extension efforts.
- On-farm hands-on workshops; presentations and face time at meetings and conferences connect producers with practical IPM information, tools and resources to better manage cattle pests in the barn and on pasture. These activities also enhance "town/farm-gown" dialogue and networking opportunities to multiply outreach impacts.

For example: The Northeastern IPM Center supported our *IPM Training Opportunities for Northeast US Dairy Producers* resulting in a series of dairy on-farm meetings for producers, ag industry, veterinarians and others in New York and New Hampshire increasing awareness of issues and IPM approaches to manage nuisance and biting flies on dairy cattle in confinement areas and on pasture. 178 participants including producers and 14 extension educators.



<=> Organic Resource – available on NYS IPM website (Spanish version available Fall 2015)

"Me" Time: Extra Curricular, self study, resources

IPM education takes place in a variety of ways, locations and times. If scheduling issues make participation in live meetings difficult, computers with internet access can provide instant convenient access to NYS dairy IPM web portals for IPM "tools", available dairy IPM fact sheets, guides, diagnostic aides and other IPM resources.

Cornell Veterinary Entomology Website offers an arthropod identification key to answer "What is that pest on my animal and what can I do about it?"

NYS Livestock and Field Crop IPM Website a source for NYS IPM dairy cattle IPM factsheets, livestock IPM guides, brochures, and educational resources.

Educator Time: Train the Trainer resources for educators

County Extension personnel varying in training and subject matter expertise deliver local IPM educational programs. County resources vary and county staff multi-task, preparation time for meetings often at a premium. Livestock IPM may not be their forte' or comfort zone.

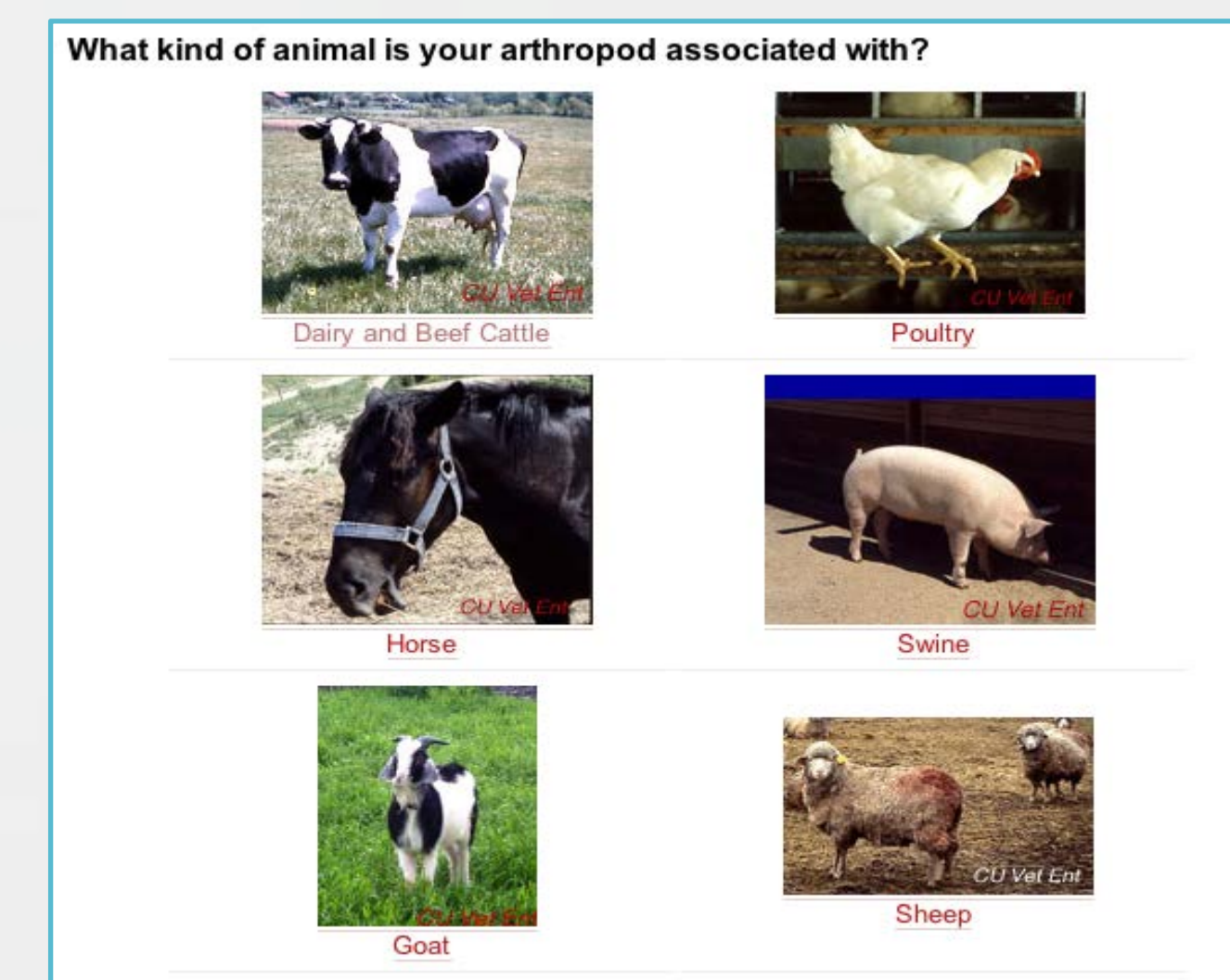
Answer? Lesson plan in a can... example Dairy Cattle Barn Fly IPM Training Module an on-line educational resource. Module provides a Quick Overview / Quick Study, introduction to key pest issues, take home messages, talking points, material for a 1 - 2 hour program, consistent message and springboard to related topics.

eTime: On-line education via the internet.

On-line resources fit well with producer interest in continuing IPM education. eOrganic webinars "Fly Management in the Organic Pasture" (7.6.11) and "Fly Management on Your Organic Dairy Farm" (4.19.12) provided a national stage to provide Dairy IPM education.

Effective Outreach?

- **7.6.11 webinar** - Farmers comprised 39% of audience, largest percentage of any eOrganic had done to date; 91% of participants in the organic pastured cattle webinar stated that they had a better understanding about fly management on pastured dairy cattle pastures; 80% of participants stated that will make a change on their farm or how they advise farmers based on what they learned.
- **4.19.12 webinar** – Intro to barn and pastured cattle fly IPM - collaboration with Vet Ent speakers from UMN, NCSU and Cornell IPM.
- "You-tube" archives of these presentations and a Dairy Barn Fly Management teleconference are available on the NYS IPM Livestock website.
- **Timely news on current livestock pest activity / updates posted to Weekly IPM Pest Report blog** (<http://blogs.cornell.edu/ipmwpr/#>), Twitter and Facebook. .



Concept	Activity	Handouts
<p>This module includes an optional barn and yard walk. If you select to do this, your host will be allowing participants to examine and evaluate the farm's current fly situation, and suggest possible improvements. This must be handled with tact and sensitivity and you must ask permission ahead of time. More below.</p> <p>Files may cause economic damage. The cumulative effect of flies along with other livestock pests—lice, mange, and external parasites—can reduce milk production, feed conversion efficiency, and grazing time. They also transmit disease and cause blood loss.</p> <p>Fly populations can quickly become resistant to insecticides. A range of management techniques—biological, cultural, and chemical—is necessary to prevent massive population explosions.</p>	<p>#1: Monitoring Barn Files</p>	<p>A. Barn Files / Happen (quiz) Your state's fly ID sheets or download our: http://www.nysaes.cornell.edu/50/ipmet/ny/livestock/barn_files/barn_files.html</p> <p>B. Fly Features and Life Cycles C. Barn Files: the Problem D. Barn Files: the Solution E. Sanitation Survey (use one)</p>

Fly Management in the Organic Dairy Pasture

J. Keith Waldron and Donald Rutz, New York State IPM Program, Cornell Cooperative Extension

July 6, 2011

http://www.extension.org/organic_production