

Plant and Pest Diagnostic Services Can Help You!

Barb Ogg
Extension Educator

Throughout the year, Lancaster County residents bring sick plant parts and an assortment of insects pests and wildlife "signs" to the Lancaster County Extension Office. A free service, horticulturists (Don Janssen, Mary Jane Frogge and Master Gardeners) and entomologists (Barb Ogg and Soni Cochran) identify insects, weeds and diseases in and around the home and garden and make recommendations about the best way to help you manage these problems.

The original extension office lab was so small (about five foot by seven foot) we were always tripping over each other, and there wasn't enough room to store reference materials or specimens. A couple years ago, the tiny lab was remodeled and expanded to help us better handle the needs of Lancaster County residents. We now have a multipurpose lab with two lab spaces, enough storage space for reference materials and lab supplies and a table to sit down

with clients. The increased space has also allowed us to organize a reference collection of insects, most of which the public has brought to the extension office over the last 10 years. Insects from this collection are used to show clients what specific pests look like and are used to help teach children and adults in various settings.

We use microscopes to identify small insects and plant diseases. The lab is also equipped with a computer connected to the Internet, in the event we need information from our Web site. About two years ago, we were able to purchase a digital microscope which is similar to a digital camera. With this digital microscope, we can take pictures of small insects and use them to enhance articles in the Neblin and on the Internet.

Properly diagnosing plant disease and insect pests is important because safe and effective treat-

ment depends on the specific problem. It is exactly like going to the doctor when you have a health problem — a correct diagnosis will determine the most appropriate treatment.

Folks can save money, protect trees and ornamentals and their home, eliminate nuisance pests — often with less pesticides — by having a correct diagnosis and using extension recommendations.

How can you take advantage of the diagnostic capabilities at the Lancaster County Extension Office? Drop your sick plants and pest specimens at our office between 8 a.m. and 4:30 p.m. each week-day. We'll examine your specimens and give you a call and/or send you information to help you make the best decisions about treatment if one is needed. This service is free for Lancaster County residents!



Extension Associate Soni Cochran identifies an insect brought in by a Lancaster County resident.



Extension Associate Mary Jane Frogge looks at a plant specimen.

The Value of the Correct Diagnosis

Extension helps thousands of people each year. Here are some examples of how Lancaster County residents have used their extension resources:

- A large windbreak was thought by the owner's friend to have spider mites and was sprayed with an insecticide. After a couple years, the trees were still showing damage, so the owner brought samples of damaged foliage to the extension office. Extension horticulturists diagnosed the trees to have a needle cast disease. The property owner sprayed the trees according to recommendations given by extension — three years later, little to no damage was found in the windbreak. The value of the windbreak was set at \$20,000 with an annual heating savings to the dwelling estimated at \$600.
- A beginning organic market gardener was trying to grow his own transplants. Each time the seedlings would get started they would wither and die. Samples were diagnosed with a damping off

fungal disease. A series of cultural practices were recommended and the seedling survived to be transplanted. Growing his own transplants saved him approximately \$3,000.

• A homeowner found small, hard, black, seed-like objects under a basement sofa cushion. The cushion also had a hole in it. She called a pest control company and the service technician told her that this was a serious carpet beetle infestation. He said the whole house needed a monthly insecticide treatment for the next year — total cost of \$462! This didn't sound quite right, so she brought the seed debris and the sofa cushion to the extension office. The seed-like debris was identified to be the hulls of wildflower seeds. The hole in the cushion was about one-inch long — much too large for carpet beetle damage. The seeds and hole were diagnosed as evidence of mouse activity. The

mouse stored the seeds under the sofa cushion, ate them and left the hulls behind and chewed a hole in the cushion, perhaps to build a nest. By knowing the correct problem, this homeowner saved money and eliminated a potential unnecessary pesticide exposure.

• In the fall, a homeowner found tiny black insects flying around in her newly built home. She contacted three pest control companies and received three different answers as to her pest problem. Extension identified these tiny insects as foreign grain beetles. They are often found in late summer and early fall in brand new homes (we don't really understand why). Because foreign grain beetles cannot reproduce in dry, indoor environments, a "no treatment" approach was recommended. After these beetles died a natural death, the problem disappeared and did not reoccur.

• In early February, a homeowner found hundreds of small insects in the basement family room jumping everywhere. She brought several live specimens to the extension office for identification. They were identified as grasshopper nymphs. It seems that a female

grasshopper laid egg pods in the pots of hanging plants on the porch the previous fall. Before frost, these plants were brought indoors and located in the basement family room. Because of the warmer temperatures indoors, the grasshopper eggs hatched much earlier than if they were outside. She was advised not to use an insecticide, but to vacuum them with a vacuum cleaner to get rid of the tiny grasshoppers. This solution cost nothing and did not expose family members to an unnecessary pesticide exposure.

• A homeowner reported a problem with moths in a bedroom. He tried a number of insecticide sprays and still couldn't solve the problem. After bringing the moths into the extension office for identification, he learned they were Indian meal moths — a common pantry pest. After learning about the moths, the homeowner headed home to look for the source of the infestation. After a few more calls to the extension office and, after ruling out his

see *DIAGNOSIS* on page 11

In this issue...

-  **Horticulture** —page 2
-  **Environmental Focus** —page 3
-  **Farm Views** —page 4
-  **Urban Agriculture** —page 5
-  **Food & Fitness** —page 6
-  **Family Living** —page 7
-  **4-H & Youth** —pages 8-9
-  **Community & Home Living** —page 10

Visit Egg Cam!

View chicks hatching, photos of embryos as they develop, and educational resources for youth, parents and teachers on the 4-H Embryology Web site at



Chicks will hatch weekly until May 9!

www.lancaster.unl.edu

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