



# Looking Back, Moving Forward

Kansas farmers and gardeners are familiar with insects attacking their crops and vegetables. They probably don't know that Benjamin Mudge taught the first U.S. economic entomology course, "Insects Injurious to Vegetation," at K-State in 1866.

"K-State has a rich entomological history," said John Ruberson, head of the Department of Entomology. "In fact, that rich history is part of what drew me to Manhattan."

Much of the department's history was recorded by Professor Herbert Knutson, who worked in the department from 1953 to 1983. After his retirement, Knutson gathered notes from former faculty and the university historian. He died before completing the project, but Ted Hopkins — with assistance from editor Eileen Schofield — published the history in 1991.

Here are a few highlights from various sources:

In 1894, Edwin Popenoe transferred from head of horticulture and entomology to chair of entomology and zoology. He published papers on weevils in food products, which began what is now an international center for research on pests of stored products, with extensive collaboration between K-State and the U.S.

Department of Agriculture.

The insect museum was started about 1877;

today the collection has more than 800,000 specimens. More than one-fourth of the collection has

been entered into a database and posted online for access by researchers around the world.

Reginald Painter, a faculty member from 1926 to 1968, worked with plant breeders in the departments of Horticulture and Agronomy and USDA to develop plants with resistance to insects. His efforts established the basis for modern work in insect-resistant crop plants, which changed crop and food production around the world.

The rolltop desk used by Painter is part of the historical Museum of Wonder now on display in the Marianna Kistler Beach Museum of Art on campus.

To study insects throughout Kansas, entomologists were stationed at off-campus research facilities. Graduate student Roy Fritz joined the Garden City Experiment Station in 1939, and the first full-time entomologist at the Hays Experiment Station arrived in 1948. In 1960, entomologist Tom

In 2012, the department celebrated the 10th anniversary of the Insect Zoo with various activities, including a Monarch butterfly release. The zoo hosts nearly 9,000 visitors per year.

Harvey and animal scientist John Brethour at Hays developed the first insecticide-impregnated ear tags, which had widespread use during the next 10 years.

Since the early 1950s, extension entomologists have prepared a weekly newsletter of insect conditions during the growing season.

K-State entomologists also developed and published the first extension publication on horticultural pesticide mixtures and use.

The department is embracing new technologies to meet the needs of producers, including several mobile pest management applications and tools: BugSpot ([www.thebugspot.org](http://www.thebugspot.org)) a free-trapping network to monitor arthropod activity, a website ([iwheat.org](http://iwheat.org)) to help field-specific management of key insect pests, weeds, and pathogens, SoyPod DSS ([www.soypod.info](http://www.soypod.info)) to aid treatment decisions for soybean aphid.

Ruberson said he sees a bright future for the department.

"The challenges of providing a growing population with a safe food supply; of battling insect-borne diseases like malaria, West Nile virus, and Barley yellow dwarf virus; and the great value of learning how insect success can enhance the quality of our lives and that of the planet ensure a vital role for entomology in the years ahead."

Knutson's history is available online at [www.ksre.ksu.edu/entomology](http://www.ksre.ksu.edu/entomology).

