

Small experimental 'farm' has big yield

By P.L. Elliott

If you're driving north on Highway 42, just beyond Sturgeon Bay, you pass by an interesting-looking complex, somewhat "farmlike," yet very different. You may well think, "I wonder what that's about?" as you continue the drive northward. Many people take little note of this odd collection of outbuildings, fields and greenhouses, unaware of the vital services the facility provides.

Richard Weidman oversees the Peninsular Agricultural Research Station.

CHRISTINE NEBEKER PHOTO



Located in Door County's rural Sevastopol Township, the Peninsular Agricultural Research Station is one of 13 such facilities operated by the University of Wisconsin's College of Agricultural and Life Sciences. These stations serve the surrounding farming communities by researching crops and production values specifically keyed to each district in which they operate.

The idea of a demonstration station, or experimental farm, as the earliest facilities were called, is not new, nor is it indigenous to Wisconsin. The first — and largest — research center was established in Harpenden, Hertfordshire, England. Built in 1843, the Rothamsted Research Station still serves the needs for farming operations throughout the United Kingdom and parts of Europe.

In 1875, the Connecticut Agricultural Experiment Station, located in New Haven, Conn., became the first such facility in the United States and it, too, is still in operation today.

Area man fostered stations

Pioneering farmers in Wisconsin had many barriers to their success. Carving productive farms out of the prairies, forests, swamps and sand dunes, while also attempting to tame the ever-fluctuating elements, put almost impossible demands on even the most experienced farmers. It took one of their own to press the resources of the university into researching solutions to the problems.

E.J. Delwiche was born in Belgium and, as a young child, immigrated with his farming family to Kewaunee County. Though trained as an elementary schoolmaster who even taught in rural Door County, a young and ambitious Delwiche soon found himself drawn to the University of Wisconsin in Madison, where he pursued the career in agriculture which would make him famous not only in the state, but nationwide.

In 1904, Delwiche succeeded in convincing the university to establish "demonstration farms," private farms temporarily on loan for educational and research purposes.



Soon Delwiche was once more lobbying the university administrators, this time pressing for permanent experimental stations on farmland to be donated by local municipalities, and operating under the auspices of the university. In 1909, the first of these permanent "experimental stations" was founded on 80 acres donated by the city of Spooner.

By the time the Peninsular Research Station was established in 1922, Delwiche had risen to the position of director of substations, a liaison between the local farmers and the College of Agricultural and Life Science's research scientists.

The 120 acres of the Peninsular Research Station — as is true with all the research stations — functions as Delwiche envisioned it, as an outdoor laboratory and educational center. Its research supports the wide variety of Door County farms, among them orchards, dairy, silage and the early vestiges of an emerging wine industry.

Weidman continues tradition

A Door County native, Richard Weidman started his career at the Peninsular Research Station in 1980. He was appointed superintendent of the facility in 1982, the same year he finished his master's in horticulture at the University of Wisconsin-Madison.

Today the Peninsular Research Station is more commonly referred to as "PARS," but Weidman said it continues to do the work it was first intended to do — namely fruit orchard research — as well as new assignments.

"We now conduct most of the tree fruit research done in Wisconsin, along with small fruit plantings and demonstration gardens," said Weidman.

But while most of the research performed at the station is directly related to local agricultural needs, PARS also has the distinction of hosting the U.S. Department of Agriculture's (USDA) Potato Gene Bank.

"The Gene Bank's mission is to collect, classify, preserve, evaluate and distribute seed and tubers of more than 150 wild species of potatoes to potato breeders worldwide," explains Weidman.



CONTRIBUTED PHOTO



CONTRIBUTED PHOTO

“Tourism is really the driving force behind the rapid expansion in fresh market sales of fruit crops and fruit-related products.”

— Richard Weidman

Experimental Farm, continued

When asked, Weidman said PARS was chosen to manage the Gene Bank because “the station’s Door Peninsula location kept it isolated from the major potato growing areas of the country. Unfortunately, since its establishment in the early 1950s, most of the major disease and insect pests which attack the potato have now found their way to the Door Peninsula.”

Amidst the gene stock protected by the USDA Potato Gene Bank at the Peninsular Research Station is that for the “Late Blight” resistant gene, responsible for the Irish Potato Famine of the mid-19th century.

Most of all, the station prides itself on its service to local farmers.

“Since the late 1940s, PARS has served as an outdoor laboratory for researchers engaged in fruit crop research. Most of the past and present challenges faced by fruit growers have been addressed by research projects undertaken at the Research Station,” Weidman said. “In fact, present-day projects involve many of the same diseases, insect and cultural problems that plagued growers 50 years ago,

but are now being dealt with much differently. Researchers today seek solutions that are not only effective in protecting and increasing crop production, but do so while protecting the environment.”

Many of the crop production enhancements of the past, while successful in ridding orchards of disease and pests, also took a deadly toll on the environment. The station’s solution to this problem took the form of the only statewide call-in advisory service for tree fruit growers.

“The call-in advisory service provides growers up-to-date disease and insect information with recommendations for management and control,” said Weidman. “Information is compiled at five remote computerized weather stations and insect traps located from Ellison Bay in northern Door County to Casco in Kewaunee County.”

The results, gathered through computer downloads, or by the growers, are analyzed by the station’s fruit specialists, and made available through the call-in advisory system.

“Compared with the way diseases and insects were managed 20 years

Developed at the research station, the Honey Crisp apple (above) has rejuvenated Door County’s apple market. The station (far right) is located just north of Sturgeon Bay on Highway 42.

ago," Weidman continues, "this service allows growers to reduce their pesticide applications by up to a third of what they would spray on a calendar-based program."

New apple, grape trials

The station has helped produce some tasty results.

"One of the very first tree fruit projects that Dr. Frank Gilbert (PARS Superintendent from 1950-1982) initiated was an apple variety test block. It was from this block that MN 1711, a selection out of the University of Minnesota's breeding program, was observed to have a texture and flavor unlike any apple in the 40-year history of the apple variety block," said Weidman. "In addition, the apple was shown to have an exceptional storage life while maintaining its unique eating quality — sometimes long after it was left out at room temperatures."

This apple variety was brought to the attention of Door County's largest apple operation owners, Jim and Steve Wood, who soon procured these trees to plant in their own orchards. Now grown throughout Door County, the apple is being marketed as the "Honey Crisp Apple."

According to Weidman, the demand for the Honey Crisp variety still overwhelms supply, and the variety is being credited with returning a much-needed level of profitability to the apple industry.

Weidman said, "PARS still maintains an apple variety block in cooperation with apple testers throughout the United States and Canada, where new varieties with names like 'Silken,' 'Ambrosia' and 'Sarsa' are ready to be discovered much like Honey Crisp."

Grape trials continuing

Though the apple and cherry growing industries are important components of the county's agricultural market, they by no means represent the station's only ongoing research subjects. In fact, grape trials have been ongoing since 1975, and Weidman is hopeful the station will aid both the established and new wineries with their grape production.

"Being a relatively new fruit crop to Door County growers, the station can function as a 'test mule' or 'guinea pig,' to experience first-hand problems or pests that may be associated with growing the wine grape," said Weidman. "This is why

PARS maintains plantings of almost every perennial fruit crop that can be grown on the Door Peninsula."

"Alternative crops" are also tested for adaptation to Door County growing conditions.

"Crops like lupines, canola, sunflowers and winter barley have been grown with varying degrees of success," Weidman explained.

Weidman notes that agriculture has played — and continues to play — an important role in attracting tourists to Door County:

"Tourism is really the driving force behind the rapid expansion in fresh market sales of fruit crops and fruit-related products. This means a crop is not only evaluated on its agricultural growing requirements, but on the cultural background of the consumer purchasing it."

Weidman offers an example, "We've been growing a relatively new tart cherry variety, the 'Balaton.' This red-fleshed and red-juiced cherry from Hungary is being sought out by Eastern European immigrants in the Milwaukee/Chicago area. They travel to Door County to pick it, much like they did in their native lands."

You need not be a farmer to benefit from the research station's work. Door and Kewaunee County horticulturists also turn to the PARS for information and advice.

"Our staff is available to answer questions regarding horticultural plants in the home landscape and advise them on how best to deal with the problems which befall them."

It's been more than 80 years since the Peninsular Research Station was founded, but the spirit of E.J. Delwiche is still very much alive. **DCM**



CONTINUED PHOTO