

Horticulture Research Station

1967-2017



IOWA STATE UNIVERSITY
College of Agriculture and Life Sciences
Agriculture and Home Economics Experiment Station
Extension and Outreach

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Cover photo: Aerial view of ISU Horticulture Research Station from the west, 2017 by Christopher Gannon

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CALS 0002 August 2017



Welcome!

In the fall of 1956, when E.S. Haber, head of Iowa State's Department of Horticulture, learned the Horticulture Farm southwest of campus would have to be relinquished, it would have been difficult, if not impossible, for Haber and his colleagues to imagine the eventual relocation of the farm to the Albert Pritchard farmstead northeast of Ames. But 11 years later the relocation was complete, and in retrospect, what a fortuitous relocation it turned out to be. Because in the estimation of many, the Horticulture Research Station, established in 1967, is one of the crown jewels of the Research and Demonstration Farm system. Situated on 239 acres of gently rolling farmland with a 12½-acre lake as its centerpiece, the "Hort Farm" is the place to go in Iowa if you're interested in learning about every kind of horticultural crop imaginable. From peppers and hops to turfgrass and trees, the Horticulture Research Station is Iowa's horticultural epicenter.

I have long believed every Iowan benefits from horticulture and that the station exists to help improve the quality of life for all citizens of Iowa. It's your farm! So, turn off your cell phone, put on your cap and stroll the park-like grounds of this wonderful teaching and research facility. We are proud of the work we do out here, and we're mighty glad you paid us a visit.

Jeff Iles, professor and chair
Department of Horticulture
Iowa State University



In Support of the Land Grant Mission

By Jeff Iles, professor and chair, Department of Horticulture

As one of the oldest and best land grant universities in the country, Iowa State University remains a university for the citizens of Iowa. Its faculty, staff, and students create, disseminate and then put into practice principles, methods, and technologies designed to improve the lives of all Iowans. And for 50 years, the Horticulture Research Station has been the site for the creation and application of new horticultural information. More recently, the scope of research conducted at the farm has expanded beyond its historic horticultural roots, but the spirit and formula for solving problems using the scientific method remains the same. Research, extension and outreach and teaching are the three pillars of any land grant institution, and those remain the foundation upon which the Horticulture Research Station was constructed.

Research

The concept of designing and conducting original research to solve problems is as old as Iowa State itself. And that important business is alive and well today at the Horticulture Research Station. In the world of plant research, field studies are critically important. Theories, concepts, and plain old good ideas must be tested “in

the field” to gauge their effectiveness in real world conditions. The station is the perfect place to conduct field studies because of its remote location and challenging environmental conditions. Hot in the summer, colder than town (Ames) in the winter, and a welcome breeze that can quickly turn to full-blown gale are common climate/weather variables that simply can't be duplicated in the laboratory. From demonstrations to carefully designed field plot investigations, the Horticulture Research Station was created to support original research.

Extension and Outreach

Research findings alone are useless unless they are communicated to audiences who can understand and apply them to their everyday lives. And the sharing of information between researcher and practitioner happens on a frequent basis at the Horticulture Research Station. From field days and grower meetings, to demonstration plots and guided tours, visitors to the station are able to see, smell, and touch life-changing research multiple times throughout the year. The station is the place to go to network, learn, and appreciate the beauty and impact of this wonderful tract of land.

Teaching

Undergraduate and graduate students alike benefit from the Horticulture Research Station. The living, growing plants rooted in Iowa's rich soil create powerful teaching tools. The lessons cascade forth to both the knowledgeable teacher and the attentive learner. First, as a place to learn and practice the art and science of horticulture, and perhaps later, as a worker or researcher themselves. Many a graduate of the Department of Horticulture or the College of Agriculture and Life Sciences have spent quality time at the station working alongside professors and learning what it means to conduct research that will withstand the scrutiny of peer review.

Regardless of your reason for visiting, the station will leave a lasting impression. Perhaps you'll remember those cool early mornings in June with the sun glinting off the dew-laden vegetation or the stifling heat of a July afternoon. The sound of insects co-mingling with the ever-present breeze or the rumble of a rapidly approaching late-afternoon thunderstorm. It can be a busy place with all of the crunch and crackle of the city. But more often than not, it's a tranquil place where you can think and reflect while experiencing the touch and smell of the soil.



Those of us privileged to work at the station, much like those who came before us, cherish the relative peace and solitude found in this little corner of Story County. For 50 years the Horticulture Research Station has held fast to the worthy and laudable tenets of the land grant tradition. But there is work yet to be done, and we owe it to all who've come before us, to protect this jewel of the research and demonstration farm system and to continue helping and educating all who find their way here.



Horticulture Station Projects (2016)

Project	Project Leader	Department
Bat monitoring project	J. Blanchong	NREM
Corn stover mulch study	B. Carpenter	Horticulture
Potato production	B. Carpenter	Horticulture
Sweet potato production	B. Carpenter	Horticulture
Apple sanitation water bath	B. Carpenter/J. Hartley	Hort Station
Student intern herb production study	B. Carpenter/E. Ingram	Hort Station
NTEP fairway height creeping bentgrass	N. Christians	Horticulture
NTEP green height creeping bentgrass	N. Christians	Horticulture
NTEP Kentucky bluegrass trial	N. Christians	Horticulture
NTEP perennial ryegrass trial	N. Christians	Horticulture
NTEP tall fescue trial	N. Christians	Horticulture
Tall fescue trial	N. Christians	Horticulture
Annual bluegrass control study	N. Christians	Horticulture
Grape growth regulator study	D. Cochran	Horticulture
Grape mulch study	D. Cochran	Horticulture
Hardy peach trial	D. Cochran	Horticulture
Hardy/disease resistance pear trial	D. Cochran	Horticulture
Herbicide study	D. Cochran	Horticulture
High tunnel peach study	D. Cochran	Horticulture
Hops cultivar study	D. Cochran	Horticulture
Hops moisture and plant nutrition study	D. Cochran	Horticulture
NC140 apple rootstock trial	D. Cochran	Horticulture
NE1020 wine grape trial	D. Cochran	Horticulture
Northern grape study	D. Cochran	Horticulture
Student orchard	D. Cochran	Horticulture
Vineyard weather station installation	D. Cochran	Horticulture
Organic transition mulch study	M. Gleason	PLPM
Organic transition row cover study	M. Gleason	PLPM

Key:

NREM – Natural Resource Ecology and Management
 EEOB – Ecology, Evolution and Organismal Biology
 ABE – Agricultural and Biosystems Engineering
 PLPM – Plant Pathology and Microbiology
 NTEP – National Turfgrass Evaluation Program
 SBFS – Sooty blotch and flyspeck

SBFS warning system evaluation	M. Gleason	PLPM
SBFS wetness ecology project	M. Gleason	PLPM
Alder hardiness study	W. Graves	Horticulture
Bio-plastic degradation study	W. Graves	Horticulture
Bio-plastic nutrition study	W. Graves	Horticulture
Redbud breeding trial	W. Graves	Horticulture
Row-cover removal equipment test	M. Hanna	ABE
Home demonstration pollinator garden	C. Haynes	Horticulture
Master Gardener food pantry study	C. Haynes	Horticulture
Milkweed demonstration	R. Hellmich	USDA/Entomology
Certified organic land project	N. Howell	Hort Station
Research strawberry field establishment	N. Howell	Hort Station
Student intern production project	N. Howell/T. Mazur	Hort Station
Ash pollination study	J. Iles	Horticulture
Flowering crab trial	J. Iles	Horticulture
Shade tree trial	J. Iles	Horticulture
Environmental DNA in freshwater turtles	F. Janzen	EEOB
How differing sex ratios affect turtle nesting behavior	F. Janzen	EEOB
Christmas bird count	R. Klaver	NREM
Tree swallow nesting	R. Klaver	NREM
Soybean SDS study	D. Mueller	PLPM
Cover crop demo	A. Nair	Horticulture
Cover crops garlic study	A. Nair	Horticulture
High tunnel fall crop succession planting	A. Nair	Horticulture
High tunnel tomato grafting	A. Nair	Horticulture
Integration of cover crop, vegetable and poultry production	A. Nair	Horticulture
Melon Listeria project	A. Nair	Horticulture
Mini tunnel pepper trial	A. Nair	Horticulture
Rye variety timing trial	A. Nair	Horticulture
Blackberry training study	G. Nonnecke	Horticulture
Grape nursery	G. Nonnecke	Horticulture

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Project	Project Leader	Department
Pollinator project	M. O'Neal	Entomology
Soybean pollinator study	M. O'Neal	Entomology
Fine root study on woody ornamentals	J. Randall	NREM
Missouri gravel bed tree rooting study	J. Randall	NREM
Woody plant transplant study	J. Randall	NREM
Student organic farm	Student leaders	
Robotic weeder imaging study	L. Tang	ABE
Athletic field fertility, species and safety study	A. Thoms	Horticulture
Bagging vs. mulching, what works	A. Thoms	Horticulture
Bermudagrass cold hardiness study	A. Thoms	Horticulture
Plant growth regulators control of rough bluegrass	A. Thoms	Horticulture
Golf course fairway organic matter management with fraze mowing	A. Thoms	Horticulture
Golf course putting green organic matter recycling study	A. Thoms	Horticulture
Lawn establishment timing by species study	A. Thoms	Horticulture
Weed control on athletic fields	A. Thoms	Horticulture
Personalities of paper wasps and their colonies	A. Toth	EEOB
Nutrition and virus titers of honeybees	A. Toth	EEOB
Role of the gene Vitellogenin in wasp sociality	A. Toth	EEOB
Transplanting beehives to prairies	A. Toth	EEOB
Effects of ag intensification on honeybee hive health	A. Toth	EEOB
Nutritional stress effects on honeybee queens	A. Toth	EEOB
Effects of honeybee viruses on social behavior	A. Toth	EEOB
Flowering phenology of clover in agricultural field edges	A. Toth	EEOB
Prey foraging by paper wasps as Brassica biocontrol	A. Toth	EEOB
Seasonal variation on the nutritional value of pollen	A. Toth	EEOB

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On left from front: Jeff Braland, Lynn Schroeder, Brandon Carpenter, Ben Pease, Nick Howell. Right side from front: Moriah Bilenky, Amanda Vanscoy, Michaela Jenkins, Hunter Hamilton, Ben Fox, Tim Dalsgaard, Eli Samo. Photo by Barb McBreen.

Horticulture Research Station Staff

Horticulture Station superintendents

Al Kemp, 1968-1985
 Mark Stoskopf, 1986-1993
 Richard Moore, 1993-1999
 Will Emley, 2000-2005
 Nick Howell, 2006-present

Current staff

Nick Howell, superintendent
 Brandon Carpenter, agriculture specialist
 Ben Pease, research associate (turfgrass)
 Jeff Braland, farm equipment operator
 Lynn Schroeder, field laboratory technician

Former employees

Paul Dayton
 Bill Connolly
 Tim Wiegler
 Ken Bickelhaupt
 Al Morris
 Adrian Lucas
 Rich Clayton
 Dennis Portz
 Jim Kubik

Former turfgrass research managers

Jeff Nuss
 Rick Moore
 Ken Diesberg
 Jim Dickson
 Rodney St. John
 Chris Blume
 Marcus Jones
 Dan Strey

A Brief History of the Land that became the ISU Horticulture Research Station

Condensed from 2008 extension publication written by Meg Speer

Every farm has a story that links specific people to a specific plot of land. This story connects farmland of the station located northeast of Ames, Iowa, to the families who tended its soils for more than 130 years. The station consists of 229 contiguous acres of land in Section 1, Franklin Township and Section 6, Milford Township, in Story County, Iowa. These are the owners of the land before it became the Horticulture Research Station.

The Dodds Family

James Dodds was born in Westmoreland County, Pennsylvania, the oldest of 11 children. He grew up in Washington County, Ohio, and came to Boone County, Iowa, in 1856 at the age of 19. In 1859, he married Catherine Kegley (Keigley). They settled on a farm near Belle Point in Boone County. In 1865, they moved to a Story County farm which is the Horticulture Research Station. They lived on the farm 35 years raising a family of four boys and four girls. In 1902, they moved to a ranch near Lamar, Colorado. James died in 1905 and Catherine in 1907. They are buried in the Gilbert Cemetery in Gilbert, Iowa.

History of the Dodds family states James was a progressive farmer as well as a carpenter, a shoemaker and jack-of-all trades while living on the 440-acre farm in Story County. He mended not only his own childrens' shoes, but those of neighbor children as well.

Dodds owned one of the new harvester (binder) machines, pulled by four mules. It required two men and two boys to stand on a platform and quickly tie the grain into sheaths. It was very hot, dirty, and exhausting work. Each person helping earned \$2.25 a day.

The Dodds home was impressive, according to one author: *There are many valuable improvements made and in the making in Franklin Township ... In passing through Section 6 of Milford Township we find on a nice elevation a very fine residence owned and occupied by James Dodds. This has the outward appearances of one of the finest dwellings in the Township.*

The house remained on the farm and housed the farm superintendent until 1970 (see photos).



James Dodds family, back row left to right, Gertrude, Bele, James, Mattie, William. Front row left to right, Guy, Katherine, James Sr., Fannie and Thomas.



James and Katherine Dodds family home. Later home of Albert and Nina Pritchard and family.

W.M. Greeley

Wallace Greeley was a former Union Army officer. Captain Greeley used savings from his military pay to purchase a farm near Ames, which may have been the farm. The Greeleys donated the lots for the original Public Library building and Mary Greeley served on the first library board from its founding (1904) until her death at the age of 68. To honor his wife's memory Wallace Greeley built the town's first hospital (1915-1916) and named it Mary Greeley Hospital. He apparently purchased part of the Franklin Township farmland on his early visit.

Lewis O. Teglund

The name of Lewis O. Teglund first appeared as a landowner in Franklin Township in 1885. In 1919, he owned much of the land where the station is located today.

George F. and Rose Veenker

In 1931, Iowa State College hired George F. Veenker as a head football coach from the University of Michigan. Iowa State had just finished a winless season in 1930 and had 16 consecutive losses. Veenker turned the Iowa State football program around and was promoted to athletic director from 1933 to 1945. He was instrumental in acquiring recreational lands near the campus including land for the golf course, which bears his name. In 1940, he and his wife purchased land where the station is

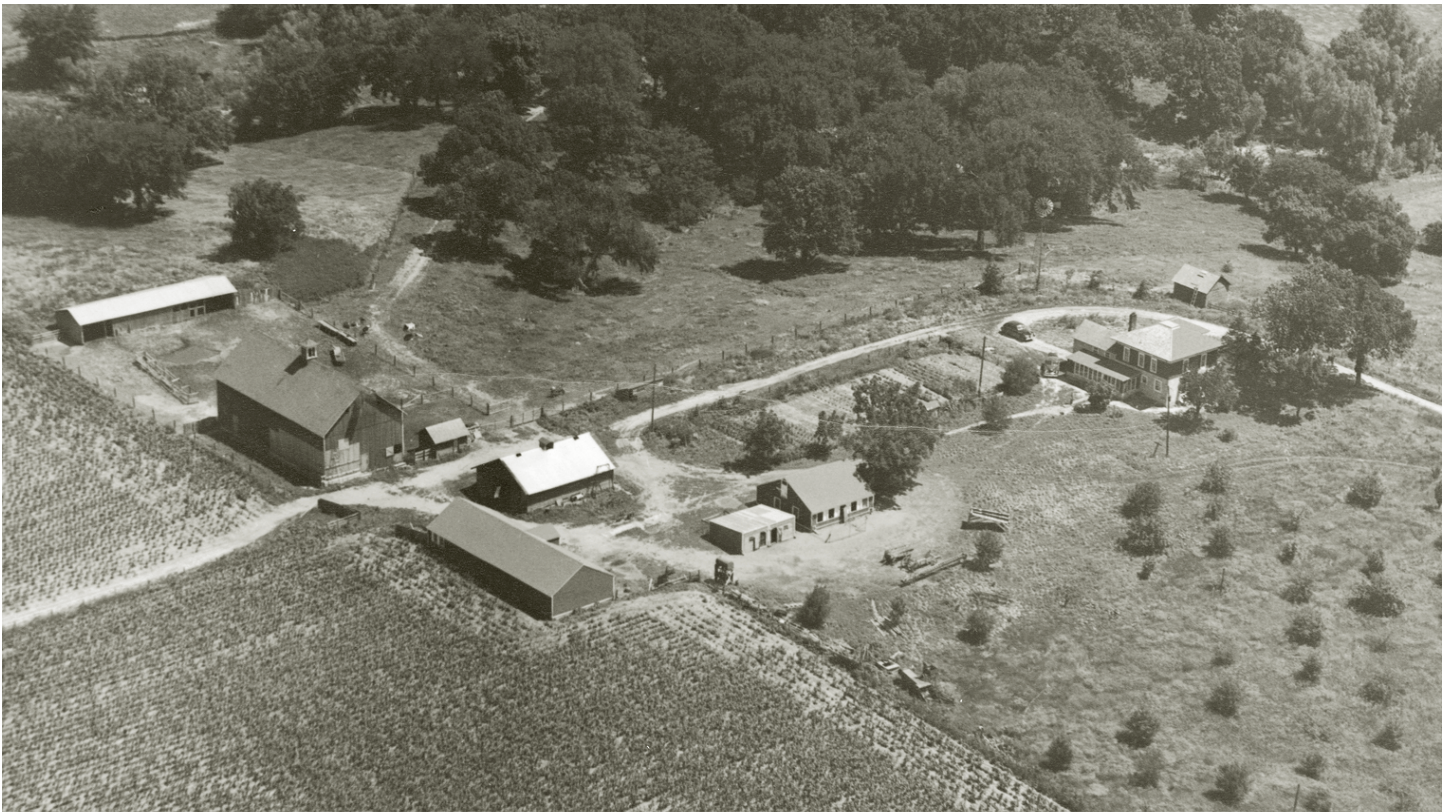
located, presumably from Edward McCall. They sold the farmland to Albert and Nina Pritchard in 1948.

Albert and Nina Pritchard

Albert and Nina Advise Pritchard were married in 1933. For several years they farmed at Bondurant, then moved to State Center. In 1940, they bought and moved to their 229-acre farm east of Gilbert. Quoting from the Ames Tribune Mystery Farm article: *Twenty years later they can look contently over their farm, which offers an especially beautiful view to the east where the Skunk River and the bordering trees may be seen about a half mile away and feel they have accomplished much.*



Albert Pritchard family left to right Nina, Ernest, Leath, Albert.



Albert Pritchard farmstead circa 1950, future site of the Iowa State University Horticulture Research Farm.

Albert farmed alone and was well known in Story County. He was president of the Gilbert Coop, and was active in many other organizations. He also won many corn husking contests.

There are pictures and articles of the 12-acre erosion control lake he built on the farm — one of the finest in the state at a cost of \$8,000. The dam was more than 30 feet high and formed a lake of more than 12 acres, with 465 acres of watershed draining into the lake. The lake continues to serve as the primary source of irrigation water at the station.

A local article about the farm states: *At this point it would be hard to find a prettier scene than that which can be seen from the Pritchard farm lot situated at the top of a hill, which tapers off gradually in all directions. To the north is a little wooded pasture. A winding creek runs through it and goes down to drain into Kegley Branch. In the distant background are tree after tree of wild crab apples, all in bloom.*

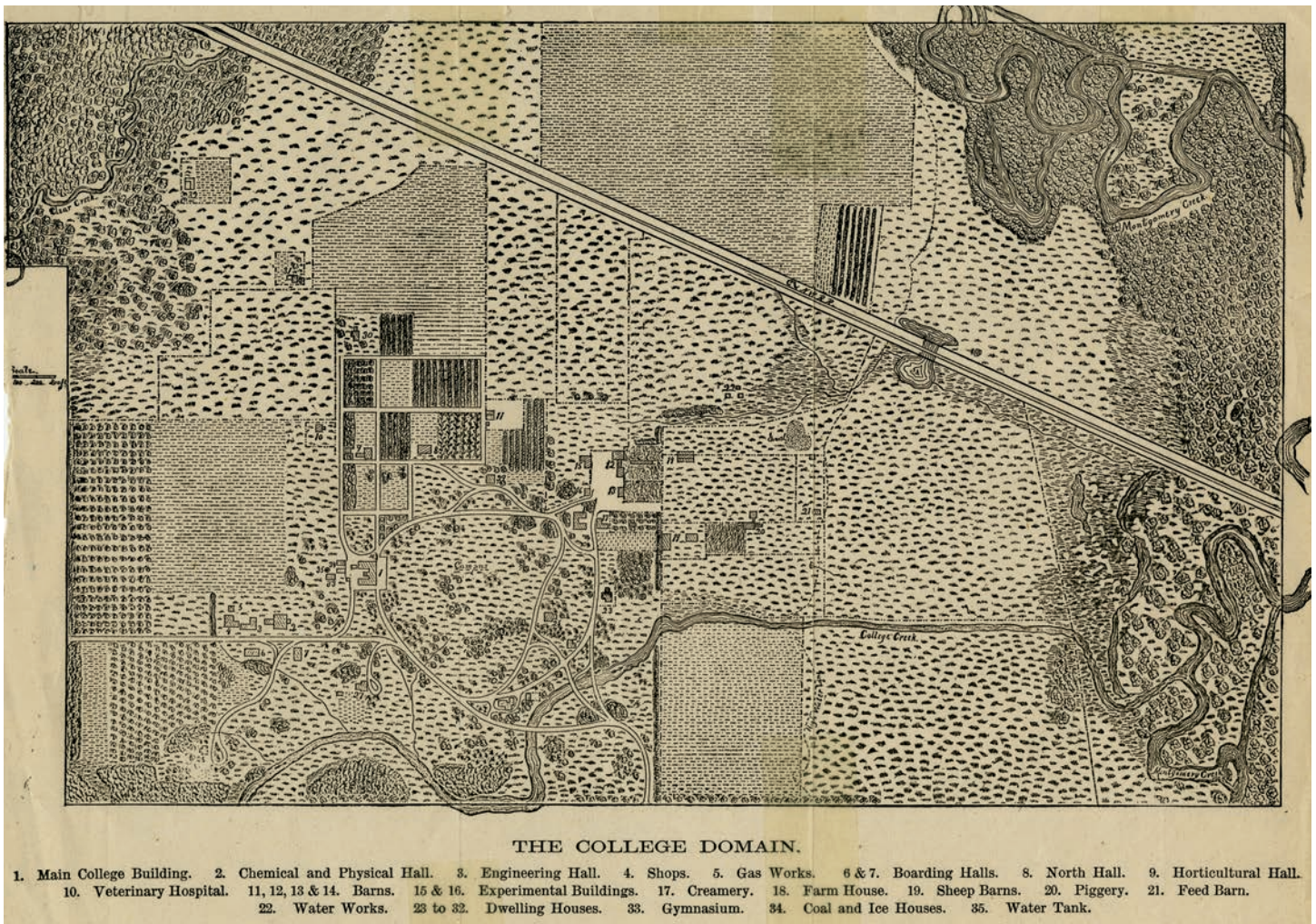
Another article read: *There are 185 crop acres at the Pritchard's 229 acre home. At this point 80 acres are planted to corn, which is already up, 35 to oats, 13 to rye and 25*

to wheat. There are still the 16 acres of beans to plant. Beef cattle are the principal livestock crop at Farm 328. Pritchard has marketed 43 Hereford and Angus animals thus far this year, and they now have 25 cows and 26 calves at the farm. He also raised 23 acres of sweet corn for the Marshall Canning Company in Roland.

Nina took care of the little chickens — 1,000 baby chicks and later about 400 pullets for laying. She and her daughter, Leah, planted a big garden and fruits and vegetables. Leah grew pumpkins, which she sold to help make money for band uniforms in Gilbert.

Albert passed away in 1962 in Ames, at 55 years old and is buried in Bondurant. Nina remained on the farm for two years. A farm sale was held in 1964. Homer Larsen, realtor in Madrid who originally sold them the farm, contacted them again.

In 1964, the Committee for Agricultural Development, an affiliate organization of the Iowa State College of Agriculture, purchased the Pritchard Farm at the request of the ISU administration for the specific purpose of a new site for the horticultural farm.



Campus map from 1883 (Special Collections Department, Iowa State University Library). Note: orchards west of campus and fields north of campus.

Efforts to Relocate the Horticulture Farm

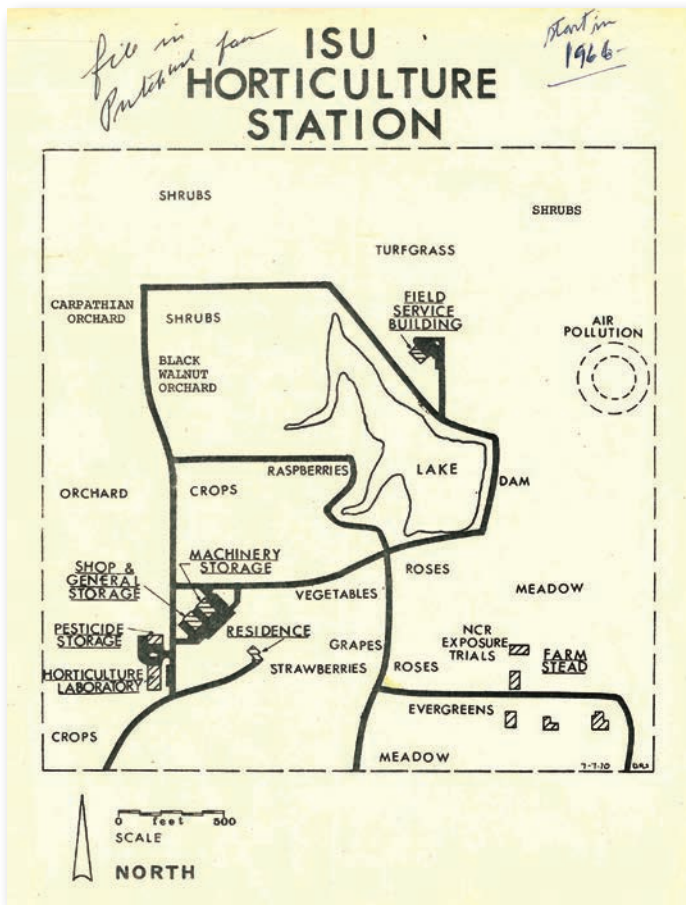
The story of the ISU Horticulture Research Station starts with the Iowa State University campus. Iowa State began as the Iowa Agricultural College and Model Farm with the act of the Iowa legislature in 1858. The first building, the Farm House, was built in 1861 and the first class enrolled in 1869. The first horticulture classes also were offered in 1869. From Iowa State's earliest days horticulture was a key component of the college. Early horticultural leaders in the college included Charles Bessey, Joseph Budd and Spencer Beach.

Early fieldwork on the Iowa State campus

The Iowa Model Farm was operated by the college as primarily a demonstration site until 1888 when the Iowa Agriculture and Home Economics Experiment Station was established funded by the federal Hatch Act. The Hatch

Act was authored by Seaman A. Knapp, an agricultural professor and later first dean of the agricultural college at Iowa State College. The process of converting the college farm to experiment station began. The experiment station caused more research plots to be planted around the campus. The Hatch Act generated stable funding for agricultural research and resulted in organized experimentation. The results of the research became the foundation of the agricultural curriculum and later the basis of extension programming to farmers.

According to C.V. Hall, "In 1922, 220 acres were purchased southwest of campus for fruit research on which structures were built for handling and storage. The previous site was north of campus from 1886 to 1924 in the area encompassed by Pammel Court and Veenker Golf Course."



An early (~1970) map of the new Horticulture Station.

In the 1920s, the horticultural plots were moved off the central campus to land southwest of the campus. At the corner of Sheldon and Knapp streets was the horticulture farm headquarters. Orchards and vineyards continued south and west from there across State Avenue and south of College Creek and the area was called the ISU Arboretum. Facilities included a “seed laboratory, underground storages, machine sheds, turf field laboratory, sales barn, and other (minor) buildings.”

By the 1960s, the “old” Horticulture Farm was a collection of 17 buildings and two residences including a brick seed lab, two barns, potting shed, aluminum turf building, metal seed storage, sales building, four underground cement storage caves, a landscape house, three vegetable storage units, media storage shed and a building called “old iron,” which contained an assembly room, tool room and herbicide storage. Today, the only remaining building is the small shop on Arbor Street.

Also by the 1960s, this “old” horticulture farm was located in an area that was feeling campus expansion pressures. Construction of Beyer Hall, relocating tennis courts, widening of Bissell Drive as well as expanding needs for new residence halls and the athletic department contributed to relocating the horticulture farm. The City of Ames also was growing. The Iowa Board of Regents issued a policy statement to relocate university farm areas north of the new Highway 30 bypass.

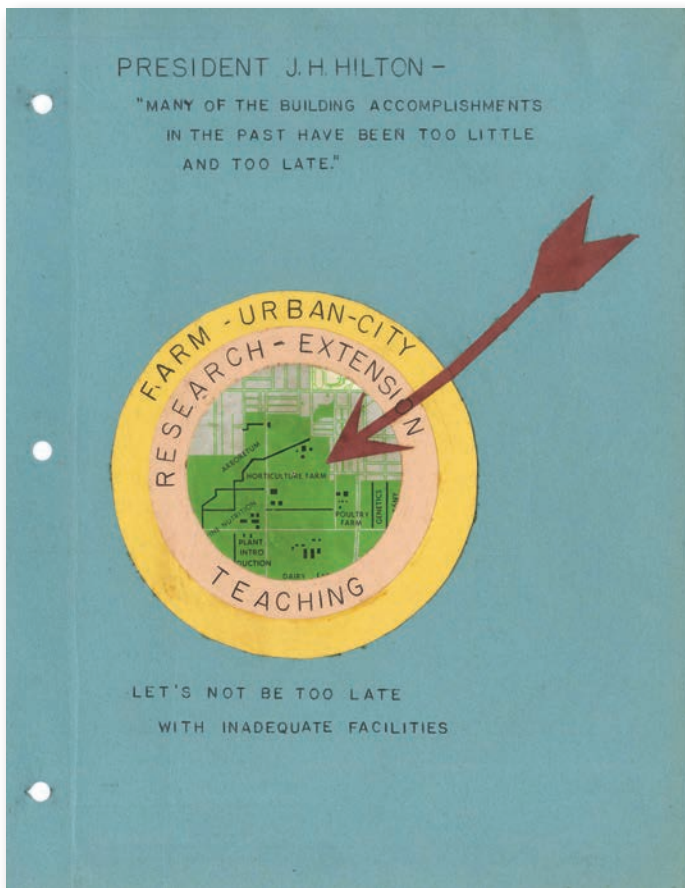
Efforts to relocate the Ames Horticulture Farm in the early 1960s were part of a college-wide priority to move plots, livestock and farms farther from campus to create land areas for critical campus growth.



A newspaper clipping explaining the relocation of the Horticulture Farm.

The horticulture department appointed a Farm Planning Committee in 1964. The committee consisted of horticulture faculty: A.E. Cott, J.P. Mahlstedt, L.C. Pierce, E.C. Roberts and E.L. Denisen, chair. They developed a “Prospectus” for a new farm (see photo of cover page 15). The committee identified three critical aspects for a new farm: lead-time, water and location.

Lead-time emphasized an eight-year transition needed to replace existing orchards and vineyards (see photo of figure page 15). Water was critical for irrigation. A lake or reservoir was deemed the best water source of the area near Ames. Location was important for student, faculty and the public to access.



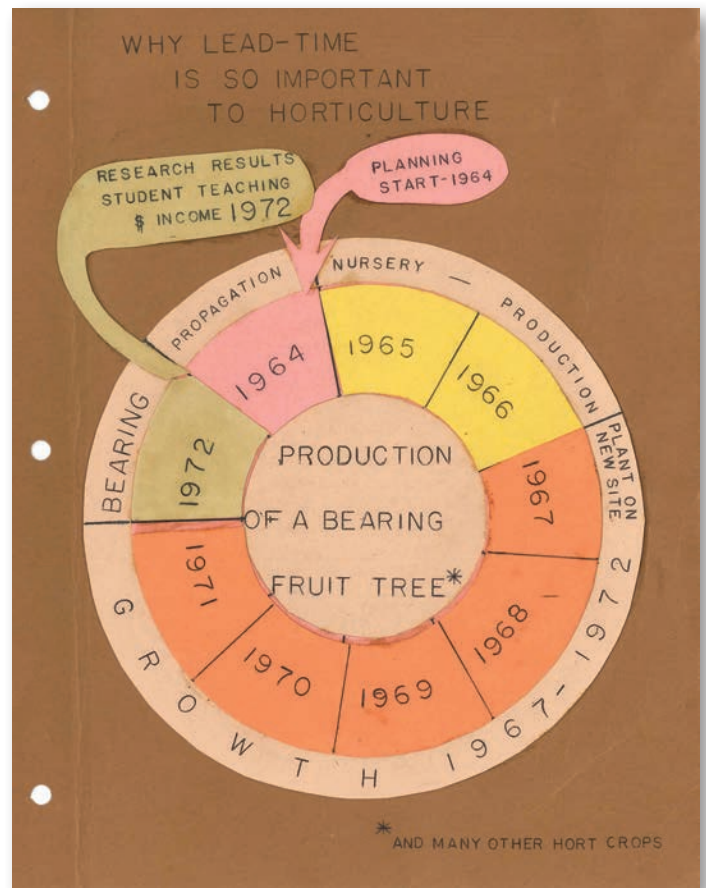
The cover of the 1964 Prospectus to relocate the ISU Horticulture Farm.

Several trends were identified by the committee:

- greater urbanization in Iowa
- increased mechanization of horticultural crops
- growing student enrollment
- increasing academic staff
- needed irrigation
- broad partnering across the university
- expanded use of field days
- continued use of outlying research farms
- needed marketing assistance by Iowa growers
- using the hort farm as a teaching laboratory
- increased operations budget

Land needs were projected as:

General	12 acres
Turf	10 acres
Vegetables	40 acres
Ornamentals	25 acres
Tree fruits	30 acres
Small fruits and vineyard	20 acres
Buffer areas	23 acres
Total	160 acres



A figure from the 1964 Prospectus showing the lead time for relocating orchards.

Proposed buildings and improvements were:

- field laboratory with shop, storage, labs, pesticide storage, offices and classroom
- foreman house and garage
- propagation structures
- irrigation system capable of serving 10 acres of vegetables and 10 acres of turf

In June 1964, the committee gave an evening tour of the old Horticulture Farm to the Des Moines Men's Garden Club. Topics included small fruits, turf, shade trees, fruit and evergreens. J.P. Mahlstedt spoke on "The (ISU) Department of Horticulture, its programs with an Eye to the Future." The Horticulture Farm was described as a "multiple use area (for) teaching, research and extension. No doubt the relocation to land known as the Pritchard Farm was discussed. Nine faculty and staff were involved.

The Pritchard Farm, 8 miles northeast of Ames or 2¾ miles east of Gilbert, seemed ideal for the new Horticulture Station. The rolling topography offered a suite of soils and slopes, the old farmstead was in the corner of the property, and there was a new 100-foot cased

well. The farm was only 1¾ miles from U.S. Highway 69 (the Gilbert Corner) on a county gravel road. The crown jewel was the 12-acre lake located in the center of the 229-acre tract.

The decision to move the horticultural farm from the southwest edge of campus to the Pritchard Farm must have been a difficult decision by the horticulture department. Probably, the 12-acre lake as an irrigation water source was a major factor, plus the topography and a diverse range of soil types. The committee calculated the lake contained 3.2 million cubic feet of water compared with the 1962 usage of 180,000 cubic feet at the hort farm near campus. Seven soil types were identified at the Pritchard Farm with a variety of 1 to 20 percent slope.

The acquisition of the farm was complex. The file is thick with leases, deeds, memoranda and financing plans by several entities and individuals including B.H. Platt and Wayne Moore of the ISU Business Office; Ralph Bean, of

the Committee of Agricultural Development; the Board of Regents; Daniel Griffin, of the Research Foundation; and the Executive Council of Iowa. The ingenuity, persistence, and foresight of these individuals resulted after 10 years with the Pritchard Farm being owned by ISU. Funding was ultimately generated by the sale of land from the Ankeny Munitions Plant for the Des Moines Area Community College. The munitions plant had been transferred to Iowa State by the federal government after World War II.

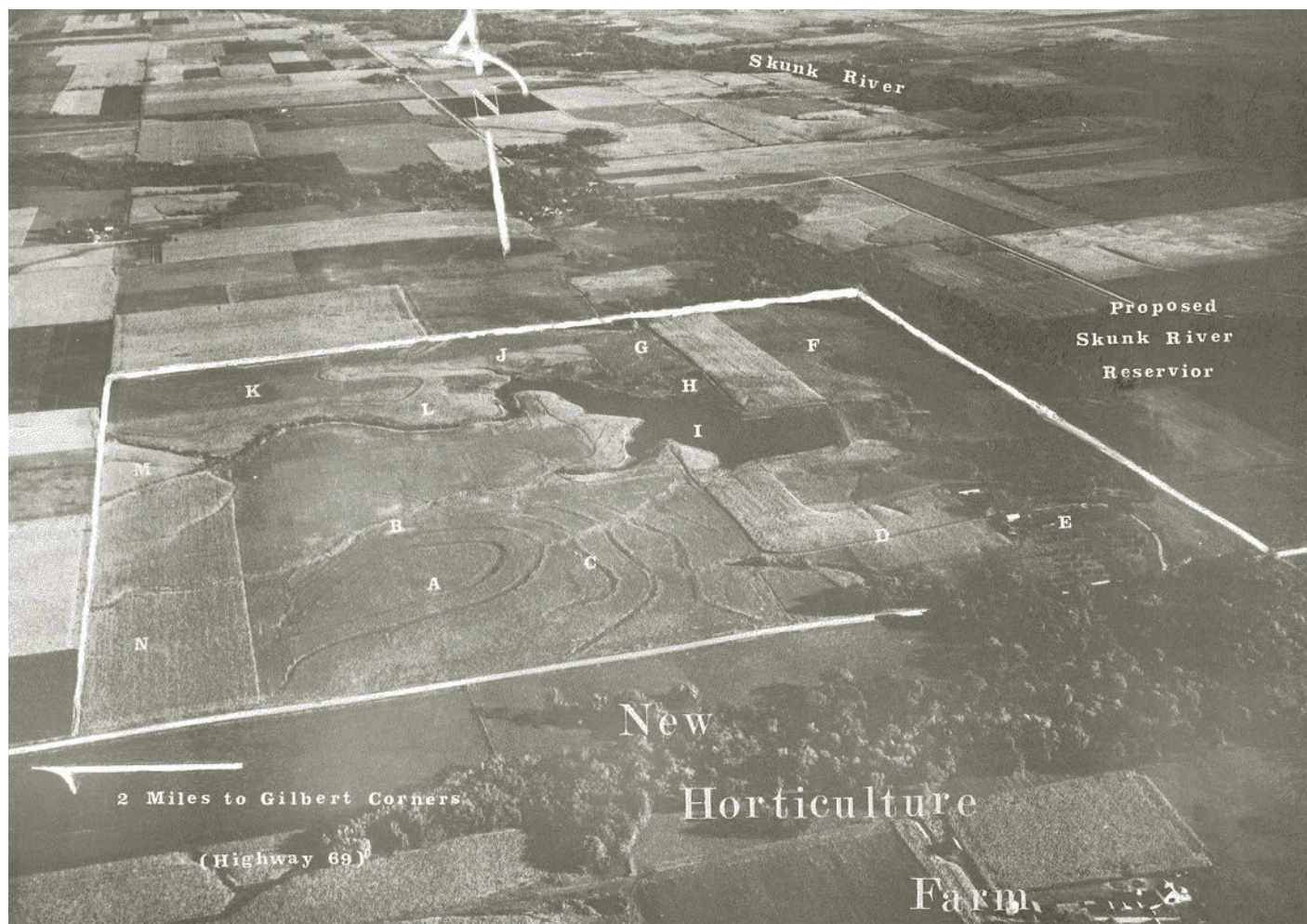
Sources

Hall, C.V., History of the ISU Horticulture Department.

<https://www.hort.iastate.edu/about-us/history/>

Research Farms files, Curtiss Hall and ISU Horticulture Station, ISU Ames, IA including the New Horticulture Station Prospectus.

Ross, Earle D. 1942. A History of Iowa State College of Agriculture and Mechanic Arts. 451 pp.



NEW HORTICULTURAL FARM
Terrain, Location, 2 Miles East of Highway 69 on Gilbert Road
Proposed Arrangement of Principal Areas



ISU Horticulture Research Station 1970 aerial view.

Establishing the Horticulture Research Station

Once the Pritchard Farm was acquired, plans began in earnest for the new station. In January 1966, a building committee of horticulture faculty submitted a plan for the facilities. It included a residence, headquarters building, field laboratory (turf shed), pesticide shed, greenhouse plus interior roads, site grading, utilities and an irrigation system. The total budget was \$211,400. The building committee consisted of A.E. Cott, E.L. Denisen, E.C. Roberts, J.L. Weigle and F.H. Schulte (chair). The headquarters requirements were defined to include an office, a conference room, a classroom, restrooms/lockers, apple sales area, fruit and vegetable grading, cold storage (eight walk-in coolers), loading dock, a large meeting area and a storage area. Other facilities were similarly detailed. Ultimately, all the facilities in this plan, except the greenhouse, were built.

Once on site, the existing Pritchard farmstead was the base of operations while the construction was underway. Al Kemp, the first superintendent, moved his family to

the old Pritchard farmhouse until the new residence was completed. From 1967 to 1970, the six primary buildings were constructed:

- Residence
- Horticulture Laboratory (headquarters)
- Pesticide Storage
- Shop/Storage
- Machinery Storage
- Field Service Building (turf shed)

Over time, the old farmstead buildings were demolished, except the “creamery” building, which was converted to storage.

Just as important as the buildings was the station layout and infrastructure. A new farm entrance, roadways to plots and around the lake, plots, orchards, vineyards and irrigation lines were carefully sited and installed. By summer 1970, the station was fully in place and functional (see map page 14).



Aerial view of the ISU Horticulture Research Station prior to construction, circa 1966.



ISU Horticulture Research Station superintendent's house circa 1970.



Al Kemp, superintendent ISU Horticulture Research Station, and son Bryce in the new apple orchard circa 1970.



Irrigation installation ISU Horticulture Research Station circa 1970.

The building committee also reported on a visit to Rock Island, Illinois to meet with the Army Corps of Engineers. Its purpose was to learn about the proposed Skunk River reservoir project. The project had been approved by Congress, but not funded. The reservoir as planned would have taken “a considerable portion of the eastern part of the farm,” but was never constructed.

The framework of the station was established. The primary buildings, modern and well-planned, compared with the former site, were in place. The respective plot areas were designated. Extensive plantings were planned and executed, including major apple orchards featuring releases by Professor Beach. Other plantings included windbreaks, crabapple trials, a vineyard, ornamental and shade tree plantings. The lake was tapped to feed an

underground system of irrigation pipes. The old farm was gradually transformed into a remarkable setting to teach, learn and research Iowa horticulture.

Over the last 10 years, the College of Agriculture and Life Sciences and the Department of Horticulture have invested in extensive renovations and improvements to the station. Specifically, the original buildings were re-roofed, painted re-insulated and new windows and doors were installed. The water tower was sandblasted and painted. An automatic gate was added at the farm entrance. Rural water and expanded tile drainage were installed. A new system with three variable speed pumps was installed to access and supply lake water to an expanded irrigation system. Numerous high-tunnel structures also were constructed.



ISU Horticulture Research Station superintendent, Al Kemp and son, Bryce, at the original farmstead station shop.



Graduate students Al Beck (right), Eldon Stang (left), Al Kemp, superintendent ISU Horticulture Research Station (middle) gladiolus planting circa 1970.

The practicality and usefulness of the station's layout has stood the test of time. In spite of major changes in horticulture due to adaption of mechanization, high-tunnels, trellis orchards, new cultivars and crops and the application of computer technology, the station's buildings and arrangement continue to provide the foundation for intensive programs of research, extension and instruction.

The Horticulture Research Station has served dozens of faculty and staff, thousands of students and tens of thousands of visitors over the last 50 years. The careful planning and remarkable foresight of those who sited and planned the station are a testament to the role of Iowa State University's motto "Science With Practice."



Aerial view of the ISU Horticulture Research Station from north, 2017. Photo by Christopher Gannon.

Horticulture Research Station Timeline

Date Event

- 1964** CAD, an affiliate of the ISU College of Agriculture, acquires land for station
- 1966** Original Chieftain apple orchard established
- 1966** Crimson Sweet watermelon released
- 1967** Horticulture Research Station opens, with Al Kemp appointed superintendent
- 1967** CAD transfers ownership of station to the ISU Research Foundation
- 1973** Research Foundation transfers ownership of station to ISU
- 1977** Carefree Beauty rose, trialed at station, released
- 1981** Sunrise forsythia, trialed at station, released
- 1984** Red Prince weigela, trialed at station, released
- 1985** Flowering crabapple trial established
- 1985** Kemp retires as superintendent
- 1986** Mark Stoskopf appointed superintendent
- 1988** Six-cane Kniffin vineyard training system established
- 1989** C52 rootstock apple orchard established
- 1990** Shade tree trial established
- 1991** Corn gluten meal, a natural herbicide developed at the station, receives U.S. patent
- 1993** Richard (Rick) Moore appointed superintendent
- 1994** Irrigation expanded to the north and south edges of the station
- 1995** Home Demonstration Garden established
- 1997** High fence installed around the perimeter of the station to keep out deer



Chieftain tree with fruit



Flowering crabapples



Grape variety trial



300 year old Burr Oak

- 1998** Leopold Center wine/cultural practices vineyard established
- 2000** Will Emley appointed superintendent
- 2001** Rural water installed
- 2002** Aquatic Research Facility constructed with six, quarter-acre ponds for aquaculture research
- 2002** Domoto Persian walnut, developed at the station, released
- 2003** Research and Demonstration Farms assumes management of station from horticulture department
- 2005** NREM storage building constructed
- 2005** Elm tree trial established
- 2006** Nick Howell appointed superintendent
- 2006** Student Organic Farm relocated to station
- 2006** High-tunnel constructed, one of first in Iowa
- 2007** Original Chieftain apple orchard replaced with a new trellis apple orchard
- 2008** NE1020 grape variety vineyard established
- 2008** Organic practices research began
- 2009** Station supports 79 research trials led by 22 principal investigators and had a \$140,000 operating budget.
- 2009** Station hosted 1,388 visitors and six field days
- 2010** New trellis orchard established to replace semi-dwarf apple orchards
- 2011** Station-funded graduate assistantship program began
- 2012** New wet well and irrigation pumping station installed on south shore of lake
- 2012** Growing system vineyard established
- 2012** Building for honeybee and wasp research constructed



Grapevine with fruit



Turtle study



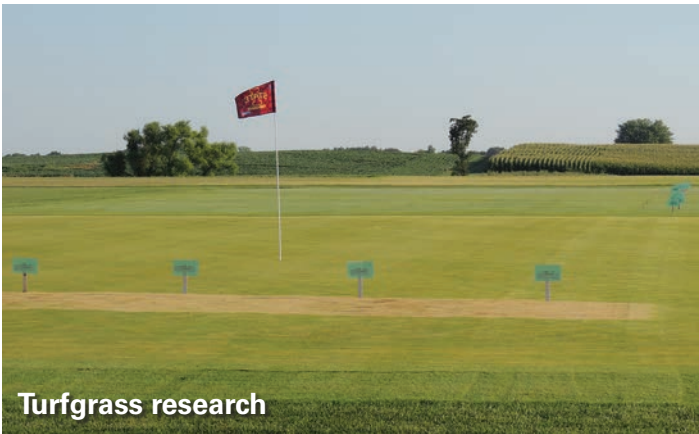
High tunnel



Honeybee research



President of Kosovo visit



Turfgrass research



Hop yard



Vegetable tour

- 2012 President of Kosovo visits station
- 2012 Second high-tunnel constructed
- 2015 Sports turf field constructed for research
- 2015 Hop yard constructed and planted for research
- 2015 Irrigation expanded to the central portion of the station
- 2015 10-acre prairie established
- 2016 Organic certification obtained for five acres of land for research
- 2016 Station supported 85 research trials led by 25 principal investigators and had a \$300,000 annual operating budget
- 2016 Station hosted 2,000 visitors and 11 field days
- 2017 50th anniversary celebrated

Abbreviations:

ISU – Iowa State University

CAD – Committee for Agricultural Development

NREM – Department of Natural Resource Ecology and Management



Lettuce research



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