

THE CASE WESTERN RESERVE UNIVERSITY FARM

SQUIRE VALLEEVIEW AND VALLEY RIDGE FARMS

2019 ANNUAL REPORT



HARVESTING KNOWLEDGE

Squire Valleevue and Valley Ridge Farms

Background

The Case Western Reserve University Farm, located on Fairmount Boulevard in the Village of Hunting Valley, is a 400-acre property that includes within its boundaries forests, ravines, waterfalls, meadows, ponds, a self-contained natural watershed, seven residences, many other structures, and several miles of roads and trails.

The farm came to the university as the result of five gifts: The late Andrew Squire gave 277 acres (Squire Valleevue Farm) in the late 1930s; the heirs of Jephtha Wade II gave Case Western Reserve 104 adjoining acres (Valley Ridge Farm) in 1977; and John and Elizabeth Hollister deeded five acres to Case Western Reserve in 1984 and another five acres in 1995. In 2013, nine acres were added to the property thanks to a generous gift by an anonymous donor.

In his will Squire wanted the farm to be cultivated and preserved as a farm for educational purposes, and to be a place where the practical duties of life may be taught; where the teachers and students can come in close contact with Mother Earth.

As a condition of the Wade gift, the university officers report annually to the Board of Trustees of the university and to the trustees of the Cleveland Museum of Natural History with respect to the operation of the donated property in 1977.

The farm continues to be a magnificent asset that provides a wide variety of opportunities for education, research, community service and recreation.



Andrew Squire Bust 2019

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ON THE COVER:

Congratulations to our 2019 PhD graduates: Dr. Anna Osvaldsson, Dr. Hilary Rollins, Dr. Jennifer Murphy and Dr. Mike Moore

PHOTOS BY:

Ana Locci, Mike Benard, ECIV 160 Class, Ohio State University Wooster Campus, Ivan Locci, CWRU Athletics, Hathaway Brown School, Beachwood School



Autumn building view 2019



Operations and Finances

Since 2011, Stephen Campbell, vice president for campus planning and facilities management, reports to the Division of Administration regarding the overall management of the farm.

Ana Locci, farm director and adjunct assistant professor in the Department of Biology, manages the farm operations, staff and finances. Locci reports directly to Stephen Campbell. Shane Brown, farm facilities group leader, is responsible for the daily on-site supervision of the farm and reports directly to Locci. Joe Miller and Greg Kosakowski work with Shane Brown on the maintenance of buildings and grounds. Patty Gregory is the department coordinator and Manor House program administrator.

Ryan Bennett is the Farm Food Program coordinator. Other staff members with the expanding Food Program include Alan Alldridge, Matt Burtonshaw, and Emily Pek. Summer students working at the Farm were undergraduate Julia Mickey hired to assist the Food Program and Gabby Kosakowski to assist the farm administration office. ❖

FARM MANAGEMENT

Stephen M. Campbell
Vice-President for
Campus Planning and
Facilities Management

FARM STAFF

Ana B. Locci
Director and Department
of Biology Adjunct
Assistant Professor

Patty Gregory
Department Coordinator

Ryan Bennett
Food Program
Coordinator

Alan Alldridge
Associate 2

Matt Burtonshaw
Associate 2

Emily Pek
Associate

Shane Brown
Facilities Group Leader

Joe Miller
Facilities Crew Assistant

Greg Kosakowski
Facilities Crew Assistant



Genes and Evolution students (BIOL 214L)



Dr. Ron Oldfield and his Ichthyology students (BIOL 338)

Academic and Research Prog

Academic activities at the farm continue showing a significant increase. The research areas have shown the greatest increase followed by courses and student life activities.

UNDERGRADUATE AND GRADUATE COURSES

Academic programs continue expanding. In 2019, the indoor and outdoor facilities were used by 13 credit courses at the undergraduate and graduate levels including courses in the fields of field ecology, introduction to biology, engineering, nutrition, nursing, and

social studies. Over 1,100 students and faculty visited the farm to teach or take credit classes.

Undergraduate and graduate courses offered included: Genes and Evolution (BIOL 214), Ichthyology (BIOL 338), Aquatic Ecology Laboratory (BIOL 339), Ecophysiology of Global Change (BIOL 353/453), Introduction to Ecology (BIOL 351L), Public Health Nutrition (NTRN 528), Civil Engineering (ECIV 160), four SAGES (FSNA) classes, and several art classes including Raku Ceramic (ARTS 214/314).



Dr. Jean Burns and her Introduction to Ecology class (BIOL 351L)



Dr. Rollins SAGES class (FSNA 136)

ograms

Research Projects	Groups	Participants
CWRU Undergraduate	4	31
CWRU Graduate	6	20
Other Research groups	5	16
Total	15	67

Academic Activities	Courses	Participants
CWRU Undergraduate	9	1,077
CWRU Graduate	4	117
Continuing Education	14	794
Community Outreach	7	2,130
Training and workshops	13	493
Total	47	4,611



Outdoors Painting continuing education class



Bird Watching continuing education class

Academic and Research Programs, continued

CONTINUING EDUCATION

The Laura and Alvin Siegal Lifelong Learning Program (LASLL) offered eight continuing education courses year-round during 2019. The program offered six summer courses and two fall courses: writing poetry, writing creative nonfiction, nature walks, bird watching and outdoor painting. Each class had between six and 21 participants resulting in 673 person-visits during the months of May to November.

The farm administration offered two continuing education classes during winter and fall, including 6 sessions total of mushroom production and foraging for a total of 121 participants.

RESEARCH

The number of faculty and students actively doing research at the farm continues to increase. Research areas included ecology, environmental studies, engineering, and conservation. Projects included graduate and undergraduate capstone research. Some of the research projects are supported by the Oglebay Trust.

Active research projects onsite include: studies on salamander populations and movements by Michael Benard, Department of Biology associate professor. Dr. Benard's main research study organisms are amphibians. His research focuses on the importance of determining why amphibians are



The bioblitz participants with Dr. Benard June 2019

declining and how to stop those declines. Amphibians provide important ecological services and they can also serve as a sensitive indicator of environmental change that might directly harm humans. Dr. Benard’s research lab consists of David Dimitrie and Troy Neptune. Dr. Hilary Rollins received her PhD in May 2019.

Another ongoing project initiated by Dr. Benard consists of the characterization of the farm’s biodiversity using the iNaturalist app. So far, over 3,800 observations of more than 1,000 species have been recorded by 54 people. Some of the observations represent the first documented case of rare or secretive organisms living at the farm, such as

Maddie Balman’s observation of a Red Salamander in June 2019. Observations of more common species help researchers track seasonal changes in the farm’s biodiversity. The observations are identified by name, location and date. Researchers participating in the data collection include Mike Benard, Ana Locci, David Dimitrie, Maddie Balman and Troy Neptune.

On Saturday, September 7, Dr. Benard organized an iNaturalist bioblitz with 25 undergraduate students, several graduate students and CWRU faculty. The bioblitz participants enjoyed an excellent day outdoors at the farm while recording over 150 new observations. These observations



Dr. Joseph Koonce creeks' monitoring program



Angie Lenard, PhD student, placing temperature monitoring devices

Academic and Research Programs, continued

included animals like Bluegill Sunfish and American Toads, plants like Tuliptrees and Common Jewelweed, and fungi like Orange Mycena. The iNaturalist bioblitz at the farm is becoming an annual tradition, and we expect more to continue in 2020.

Jean Burns, Department of Biology associate professor, continues her research program on the mechanisms governing community assembly and biological invasions in plant communities. Work in the Burns lab includes field and greenhouse experiments, demographic modeling, and phylogenetic comparative studies. Dr. Burns' lab consists of graduate students Andrew Lance and Grant Yu Liu. Jennifer Murphy and Anna Osvaldsson received their PhD in May 2019.

Christopher Cullis, Department of Biology professor, and his PhD student, Madeline Balman, are working on flax plants resistance to dry conditions. At the Debra Ann November Research Greenhouse they grow flax plants to study the mechanisms by which DNA within the cell can change rapidly, particularly in response to external stimuli.

Sarah Diamond's, Department of Biology assistant professor, research is focused on understanding and predicting biological responses to novel environments. Through a combination of field and laboratory-based experiments and statistical modeling, Diamond's lab examines how organisms cope with environmental novelty and global change. Her PhD student, Angie Lenard,



Professor Wheaton's class: Surveying and Computer Graphics (ECIV 160)



Ohio State University Wooster campus summer research

is studying the effect of temperature on local butterflies. They are studying how populations have the ability to keep pace with rapid changes in climate. The predictive physiological ecology tries to understand the basis of biotic responses to these environmental challenges by quantifying the contributions of canalization, phenotypic plasticity without genetic change, and evolved plasticity to changes in physiological traits under different environmental conditions.

Ryan Martin, Department of Biology assistant professor, continued his research during 2019. His PhD student, Michael Moore, studied local dragonflies' population metamorphosis. During his experimental work, he examined how the larval environment influences the

expression of the melanin-synthesis pathway and how natural selection within each life stage shaped the evolution of the metabolic pathway overall. Michael Moore received his PhD in May 2019.

Joseph Koonce, Department of Biology emeritus professor, continues his efforts to create a high-resolution environmental monitoring network to improve understanding of the interaction of environment and populations of animal and plant species at the scale of the individual organism for research and teaching. Another research project Dr. Koonce has been working on since 2017 is monitoring the American Beech forests affected by the Beech Leaf Disease (BLD). Drs. Ana Locci and Joseph



Daniel Volk, Joseph Koonce and Constance Hausman at the primary forest plot

Academic and Research Programs, continued

Koonce have been using drone photos and video as well as field samples at several sites of primary forests. BLD has been decimating the American Beech population at the farm and Northeast Ohio primary forests.

David Burke, assistant scientist at the Holden Arboretum and CWRU adjunct assistant professor of the Department of Biology, continues studying phosphorus limitation and soil microbial community composition in hardwood forests. His research team is assisting with the study by collecting leaves on the affected areas.

To foster further research collaboration an affiliation was signed between the Department of Biology, Holden

Arboretum, Cleveland Museum of Natural History and Cleveland Metroparks Zoo.

On Wednesday, July 24, approximately 25 participants visited the farm for a science fun day to explore onsite research opportunities led by Dr. Burns.

In 2019, the Oglebay Trust provided funds to purchase and install six growth chambers to update and expand the onsite research programs. The trust also provided mini-grants to fund a total of nine graduate student research proposals for a total of \$10,000. The grants supported work on plant, amphibian and ant study systems.

The Case Amateur Radio Club's annual amateur radio's annual emergency

preparedness event, the American Radio Relay League Field Day, took place at the farm Friday-Sunday, June 21–23. Individuals and clubs build temporary shortwave radio stations including antennas, use emergency power such as batteries and generators, and for the 24 hour Saturday-Sunday operating period, attempt to contact as many other amateur radio stations as possible.

CWRU station (W8EDU) has been using the farm as a wonderful place for Field Day for the past four years. About 40 licensed amateur radio operators and volunteers participated this year. Undergraduate students included Frank Qian, Carolina Whittaker, Ya Gao, Wei Xu, Jason Collins, Yaneev Hacohen, Antonio Zimbello, Ryan Huch; graduate student Kristina Collins; CWRU alumnus and medical student Jeff Rabinovich; alumni Nathaniel Vishner, Rachel Boedicker, Rob Wiesler, Ben Kaufman, and Sunniva Collins; faculty David Kazdan (faculty advisor), Greg Lee, Jerry Birchfield, Nate Kruse, and Larry Sears, and many friends of the station. Students were on the air with about 800 contacts from other stations.

To assist the Case Amateur Radio Club, Professor Katie P. Wheaton's class, ECIV 160 Surveying and Computer Graphics, traded the classroom for the field when they surveyed at the farm November 2019. A request from the Case Amateur Radio Club prompted the class to embark on two site visits. The purpose was to help the club find optimal locations to place antennas during their annual Field Day Competition. After surveying trees and building locations, students processed measured data in AutoCAD

and generated a report for their "client" with suggested antennae locations and cost estimates. This opportunity allowed students to apply the surveying skills learned in class to solve a real life problem.

Ralph Harvey, Professor, Department of Earth, Environmental and Planetary Sciences, held a weekend-long boot camp for the Antarctic Search for Meteorite (ANSMET). The intense educational camp took place Friday–Sunday, Oct. 25–27, 2019. Approximately, 10 participants engaged in practical things for their Antarctic work, working on snowmobiles, setting up tents, clothing demos and safety simulations. This is the third year Professor Harvey has conducted this camp at the farm.

In summer 2019, faculty and students from Ohio State University Wooster campus collected data on the insect community at the prairie area. The project is studying mechanisms governing insect community structure and function. The final goal of this study is to provide recommendations to improve greenspace design to foster beneficial services in cities. The research team consisted of Dr. Mary Gardiner, Dr. Larry Phalen, Dr. Kayla Perry, and undergraduate students Sierra Weir, Jena Copley, Amanda Han, and Katie Turo.

Summer 2019, Daniel Volk and Dr. Constance Hausman, from the Cleveland Metroparks, visited the farm to follow up on the Forest Health Project plot site set up by the Cleveland Metroparks in 2012 to monitor the beech leaf disease. ❖

Venues	Amount Sold (lbs) 2018	Percent Sold (lbs) 2018	Amount Sold (lbs) 2019	Percent Sold (lbs) 2019
BA	3,750.12	35.28%	3,940.18	38.43%
Donations	0.00	0.00%	617.25	6.02%
Farm Stand	390.27	3.67%	477.12	4.65%
Felice Café	874.66	8.23%	960.41	9.37%
Spice Kitchen	882.52	8.30%	816.60	7.96%
Perfectly Imperfect	2,961.04	27.86%	1,841.50	17.96%
Noble Beast Brewery	1,246.41	11.73%	907.32	8.85%
Black Pig	524.46	4.93%	692.63	6.76%
Total Sold (lbs)	10,629.48	80%	10,253.02	84%
Total Produced (lbs)	13,325.09		12,210.81	



Conservation Programs and C

The conservation programs continue to expand. The programs are focused on the expansion of the teaching opportunities while increasing habitat for wildlife and reducing energy consumption.

The natural gas fueled bus acquired by the university to provide roundtrip transportation to and from campus has been a great asset. This service meets the needs of the academic, volunteer, and recreational activities. During the 2019 calendar year, a total of 75 round trips were provided for 2,533 riders. Transportation served 26 programs including credit courses, volunteer groups,

departments, student groups, and special CWRU sponsored events.

The Farm Food Program (FFP) continues to provide new educational opportunities for faculty and students by studying local food production in a sustainable way using methods consistent with organic farming. During the 2019 spring, summer and fall, labor was provided by farm staff Alan Alldridge, Matt Burtonshaw, Emily Pek and Ryan Bennett; summer student, Julia Mickey and several volunteers including Jon Shulam, Jenni Gantner and Erika Kahn. The FFP produced over 12,000 lbs. of fresh food during the 2019



and Green Initiatives

harvest season (over 122,500 lbs. since 2010) either in direct sales to Bon Appetit, farm stands and the Cleveland area restaurants including Black Pig, Spice Kitchen, Café Felice, and Noble Beast Brewery. Local academic institutions that visited to tour the FFP facilities included Gilmore Academy science teachers and Oberlin College faculty.

Since October 2015, the FFP, working with the campus Energy and Sustainability Office and Bon Appetit, has been able to compost food scraps from six campus dining areas, including Tinkham Veale University Center and Jolly Scholar

Transportation	Trips	Riders
Undergraduate courses	50	1,173
Student Life	20	995
Department groups	4	115
Community Outreach	1	250
Total	75	2,533

Month	Green Material Delivered 2019	Green Material Delivered 2018	Increase 2018- 2019 (lbs)	Percent increase
January	17,122	16,267	855	5.3%
February	29,024	16,231	12,793	78.8%
March	23,169	12,344	10,825	87.7%
April	30,698	16,176	14,522	89.8%
May	23,240	11,492	11,748	102.2%
June	12,852	7,132	5,720	80.2%
July	10,918	6,394	4,524	70.8%
August	12,821	10,343	2,478	24.0%
September	29,394	18,730	10,664	56.9%
October	36,949	25,484	11,465	45.0%
November	27,794	27,718	76	0.3%
December	16,032	14,924	1,108	7.4%
Delivered material (lbs.)	270,014	183,235	86,779	47.4%

Conservation Programs and Green Initiatives, continued

Brewery. The summer of 2017, a local company, Rust Belt Riders (RBR), was hired to help manage the compost program with the delivery of the green materials and consulting on compost management. RBR partnership greatly increased the amount of recycling material and compost quality and quantity. So far, there has been a diversion of over 520,000 lbs. of campus greens delivered to the farm compost piles from July 2017 to December 2019. In fall 2018, a post-consumption program was implemented in two campus dining areas, Fribley and Leutner. The new program resulted in a fifty percent increase of material delivered to the farm from 183,000 (2018) to

270,000 (2019) during the months of January to September. As a consequence the farm administration implemented a new compost system: windrow. This system allows more composting material to be processed and less labor costs. Several equipment pieces were purchased including a tractor and a compost tiller. Compost generated is used around the food production gardens to enhance the soil without the usage of inorganic fertilizers.

Teaching opportunities provided by the FFP in 2019 included visits by SAGES courses, Engineering and Public Nutrition classes. The program also provided opportunities for research and hands-on



Farm Food Program student, volunteers and staff

projects for several student groups such as SAGES (FSNA 136) team working on composting methods, and two Design for America (DFA) projects on compost and fencing designs. A Humanitarian Design Corp (HDC) team is working on a hoop house ventilation project powered by solar energy. Project advisors are Dr. Lynn Rollins and Dr. Kurt Rhoads. This group was awarded \$1,000 by Bon Appetit.

Another FFP research project implemented in 2019, is the design of a robot for weeding by two mechanical engineering masters students, David Prigg and Matthew Parulski, working with CWRU faculty Drs. Greg Lee, Wyatt Newman and Roger Quinn.

Growing Areas 2019	Harvest (lbs.)
Greenhouse complex	377.57
Mushroom Cellar	1,372.05
High Tunnels	2,401.43
Valley Ridge Farm Gardens	7,846.38
Forage	23.36
Edible Gardens	33.62
Honey House	18.13
Concord vines	88.27
Pumpkin Patch	50.00
Totals	12,210.81



Windrow compost program



New compost equipment

Conservation Programs and Green Initiatives, continued

A preliminary study was done to evaluate commercially-available potting soils for greenhouse and hoop houses usage. The goal was to evaluate which potting soil produces best transplants' performance during germination, development, and final production (weight). The preliminary study was carried out by Emily Pek. Undergraduate students will continue researching this topic in spring 2020, under onsite supervision by Emily Pek and academic supervision by Dr. Jean Burns.

The FFP staff continues to provide support for other research activities, such as growing tobacco and broccoli plants for Dr. Mark Willis and Dr. Sarah Diamond's ongoing research with moth

and butterflies. Another greenhouse activity is the overseeing of plants for Dr. Chris Cullis and Dr. Jean Burns studies.

Other community outreach educational activities included the beekeeping field day on Saturday, May 18 by the Geauga Beekeeping Association with over 60 participants.

The Eastern Bluebird Trail, in its eighteenth season, includes 50 Peterson houses located around the research ponds and nearby fields. Volunteers alumnus Bill Jirousek, staff Betsy Banks, neighbor Bruce Resnik, and farm friend Laurel Hart, checked the trail weekly during the April to August 2019 nesting season, recorded data, and banded



Dr. David Cavallo Public Health Nutrition students (NTRN 528)



Dr. Lynn Rollins, Dr. Kurt Rhoads and HDC students at hoop houses.

hatchlings. The first Bluebird egg was laid on April 25th; the last Bluebird fledged on August 23rd. A total of 168 birds fledged (134 in 2018) – 75 Bluebirds (79), 45 Tree Swallows (35), and 48 House Wrens (20) – another good year on the trail. The total number of Bluebirds fledged over eighteen seasons is now 1,007. Trail data, recorded and analyzed as part of a long-term study, continues to be included in the Holden Arboretum’s, Ohio Bluebird Society’s, and Cornell University’s (national database) totals. ❖



Beekeeping Field Day May 2019



Bluebird eggs

Facilities and Equipment Upg

Yearly facilities improvements continue largely focusing on projects to reduce energy consumption and enhance the teaching and research facilities.

The November Meeting Center improvements included installation of a new LED lighting system, indoor painting and new AV equipment. Two other teaching facilities also received AV equipment upgrades: the Pink Pig and Flora Stone Mather Teaching lab.

Manor House received much needed waterproofing at the north-east corner of the house. Two new AC units were

installed in the dining room and kitchen areas. The main driveway was repaired during the summer.

To enhance the outdoors, painting and siding were done at the Green Barn, Pink Pig and Dairy Barn in addition to the installation of new front entrance fencing.

At the Debra Ann November Greenhouse a new compressor was installed in the walk-in cooler where the food program stores harvested products. Also, ventilation fans were replaced in several of the growing areas.



Prairie 2019

pgrades

A new parking lot was constructed across from the Picnic Area 4 pavilion to accommodate 60 cars and provide an extra parking area for the expanding programs.

Equipment purchased included two covered cab tractors, and several mowing and compost equipment. ❖



Farm Harvest Festival herbs planting

Student Life

Student-initiated scheduled use of the farm facilities continues to be a popular site for students to host events. Fifty student groups reserved the facilities in 2019, bringing 2,788 students to the farm. The student reservations included groups using the Pink Pig, November Meeting Center, Manor House, Kutina Classroom, picnic grounds, Green Barn, and Silo Theater. Among the student groups using the facilities were: Alpha Chi Omega, Alpha Phi, Alpha Phi Omega Sorority, Alpha Kappa Psi, Biology Graduate students, Alpha Chi Omega, Biomedical Engineering, Engineers Without Borders (EWO), Campus Crusade for Christ, CWRU Film Society, School of Medicine, Women and Men's

Cross Country teams, Cycling Club, Delta Gamma Sisterhood, Delta Sigma Theta, Delta Upsilon, Kappa Alpha Theta, Delta Psi Omega, German Immersion, Inter Society Council, Material Science Graduate students, Law School, Master of Public Health (MPH), Mathematics Graduate Student Association (MGSA), Mandel School of Applied Social Science Doctoral Program (MSASS), Phi Delta Upsilon, Beta Theta Phi, Phi Kappa Psi, Phi Kappa Tau, Phi Gamma Delta, Phi Sigma Phi Mu Sisterhood, Pi Beta Phi, Nursing School Graduate students, Amateur Radio Club, Hazen Lab, Organizational Behavior, Sigma Psi Sorority, Summer Medical Dental Education Program (SMDEP), Student



Knitting class



Yarn dyeing

Sustainability Council (SSC), Tau Beta Pi, Theta Chi Fraternity and Weatherhead School of Management (WSOM).

On September 14th, the tenth annual "Farm Harvest Festival" event took place at Squire Valleeview Farm. The event was co-sponsored by the Case Western Reserve University's Student Sustainability Council (SSC) and the University Farm. The festival was intended to expose students to activities at the farm and raise awareness of the Farm Food Program. The event guest list included alumni, staff, faculty, graduate and undergraduate students, and their families. The attendance was estimated to be around 1,800. The fundraising effort

was led by SSC's Co-Chairs Maia Gallagher and Hannah Shernisky. Over \$6,000 was raised to support the festival. SSC also coordinated volunteers from other student organizations. The council members reached out to the university community by making class announcements, coordinating the volunteer groups, organizing student performance groups, sending emails, posting event fliers and promoting word-of-mouth. During the event SSC members welcomed visitors and helped with the many indoor and outdoor activities. Event activities included corn-hole tournament, farm animal's petting zoo, knitting and crocheting lessons by Yarn over Cleveland, and dyeing organic



Harvest Festival SSC Student Leaders, farm staff (Joe Miller not in photo) and volunteers 2019

Student Life, continued

yarn demonstration by Flora Daniels, mushroom cultivation demonstrations and making lip balm. Other outdoor activities included a tall grass field maze, pumpkin patch raffle, planting and taking home herb plants, rock painting, handcraft activities with farm harvested grape vines and Farm Food Program produce tasting.

This year’s festival theme was renewable energy. Several projects were showcased such as an irrigation system at the outdoor gardens, several monitoring devices powered with solar panels, and project plans for hoop houses ventilation with solar energy by the HDC team.

ATHLETICS

Two university cross country meets took place in August and October with more than 350 athletes, coaches and visitors in attendance: The Sudeck Invitational took place on Saturday, August 31 with teams from CWRU, John Carroll University, Allegheny College, Denison University, Albion College, and Ursuline College. The Alumni race on Saturday, Oct. 6 brought more than 40 CWRU alumni, faculty, staff and visitors to the farm.

Orientations for the School of Dental Medicine, Perioperative Medicine, and Case Western Reserve’s new faculty also took place at the picnic grounds. These orientation picnics introduce the new faculty and professional schools to the farm facilities and its usages. ❖



Coach Kathy Lanese and Cross Country women’s team

Student Life	Groups	Students
Greek life	23	602
Leaderships	9	150
Harvest Festival	1	1,800
Athletics/Recreational	17	236
Total	50	2,788

Community Groups	Groups	Participants
Research	1	72
Recreational	1	70
Total	2	142



Winter view 2019

Facilities Usage

All of the facilities continue to be a popular destination for university classes, department events and meetings, student group meetings and retreats, and outreach programs. Events hosted at the various facilities

range from international conferences and outdoor training programs to small weekend retreats. The historic facilities are not only excellent venues to host such events, but hold many memories for university alumni. ❖



John Carroll University plant ecology students

Community Outreach

As part of its strategic plan, the university is committed to encouraging other organizations to use the farm. Area museums, academic institutions, local schools and community service groups are encouraged to use the farm's facilities, property and research areas for academic purposes.

Dr. Jennifer Murphy and her plant ecology graduate and undergraduate students visited the farm on September 16 to assess plant communities in the meadows. She also provided the opportunity to her students to observe a large field station and the unique opportunity it provides for local researchers.

A collaboration between the Leonard Gelfand STEM Center and Hiram College, led by James Bader, biology faculty and Gelfand STEM Center executive director, Learning Streams International (LSI) uses a learning community model to investigate important local, regional, and international water-related issues. Funded by the US Department of State, learning communities for this 15 day residential program are drawn from high schools in northeast Ohio and regions throughout Pakistan. LSI students use EPA protocols to characterize local rivers, streams, and wetlands and to explore connections between land and water ecosystems in both highly disturbed and more pristine



*National Youth Sports Program
participants during beekeeping class*



Hathaway Brown School

Community Outreach, continued

habitats. A visit to Squire Valleevue Farm has become the traditional start to the program, taking place on the evening of the first full day of the activities. Cultural barriers quickly disappear and strong bonds form among learning communities when we unite for a common purpose in an environment like the farm.

The School Visitation Program is a hands-on program designed to reinforce concepts and field methods in the areas of environmental science, food production and ecology for local middle and high school students. During the academic year 2018-2019, the farm hosted local school visits with 1,924 student-visits, 13 teachers and over 25 chaperones. The schools participating were Hathaway Brown, Beachwood, and Ratner.

Beachwood Schools continued to offer the “Outward Boundless” Program”, an after-school club that comes to the Farm each week with students from Bryden Elementary (kindergarten-1st grade) and Hilltop Elementary (2nd and 3rd grade). During their visits they explore and play in the natural world. Beachwood elementary students were able to hike in the creeks, roll in the grass, climb in the trees, play in the snow, and slosh through the mud rain or shine. Led by Beachwood staff members Wendi Bombback, Jason Downey (Bryden) and Elizabeth Riley (Hilltop), the kids had the freedom to play creatively, navigate terrain, be social and challenge themselves physically. The students love the opportunity, which has given them direct access to a natural environment in



Beachwood School



Oberlin College visit

which to study, learn and play. The farm administration also offers the groups several pre-scheduled teaching sessions on beekeeping, mushroom production, foraging, and composting to provide an educational component to their visits.

Hathaway Brown School and Case Western Reserve continued their collaboration and usage of the farm facilities. During the academic year 2018-2019, 42 events were hosted at the farm facilities bringing more than 1,164 students, staff and guests to the farm. Their use of the facilities included the November Meeting Center, Pink Pig, Kutina Classroom, Manor House, picnic grounds and outdoor space. Visits included environmental programs for second, fourth and fifth graders; 11th and 12th-grade AP biology class field trips; middle school aquatic education;

creative writing camps; ASPIRE Leadership mentoring program, Early Childhood Pre-K weekly hikes, weeklong retreats and picnics; faculty and staff professional meetings and social events.

Over 250 National Youth Sports Program (NYSP) participants visited the Farm on June 19, 2019. The program invited Greater Cleveland children to Case Western Reserve University for a five week program. NYSP is open to children ages 8 to 16 years old from economically disadvantaged backgrounds. During this summer camp instructors promote healthy lifestyles through sports activities, educational enrichment, nutrition, and health services. During the one-day visit students learned about several aspects of food production including greenhouse and hoop houses usages, beekeeping and composting. ❖



Grants and Gifts

A Farm Annual Fund to raise funds to support new farm initiatives and programs was initiated in 2005. By means of this fund, individuals can now contribute directly to the farm during the university’s annual fund drive. To date, \$60,000 has been raised thanks to the generosity of farm friends and neighbors. This fund is already being used for new initiatives such as trails brochures, green

initiatives and support for the Farm Visitation Program.

A new stone bench were generously donated to the farm in 2019. There have been a total of 38 benches donated to the farm by families of alumni, faculty and staff. This program helps to improve the farm’s outdoors while providing a new funding source to update the facilities. ❖



Thanks for Your Generous Support to the Farm

Your continuous support has allowed us to develop new academic programs and to update our teaching and research facilities. Thanks again for your generosity.

Your philanthropy for the farm can be expressed in several ways including:

- Farm Annual Fund: Gifts received in any amount to provide unrestricted income to develop new academic and conservation initiatives, as well as small facilities improvements.
- Farm Bench Dedication Program: A \$2,000 bench donation would help to update our art teaching facilities and to improve our outdoor areas. For more information, please go to: studentaffairs.case.edu/farm/support/bench.html
- University Farm Endowment: This fund was established in 2007 to help improve and maintain the property with more than 20 structures and 400

acres of green space. Many of the farm buildings are over 100 years old and require extensive upkeep to preserve their rich history.

- Planned Giving: A planned gift to the farm would provide a benefit to you and your family by bringing immediate and deferred tax advantages to both you and your heirs.
- Memorial Tree Donation: A \$1,500 donation will plant a lasting memorial at the Farm. Gift includes the cost of a tree, selected by the Farm administration, and memorial plaque. Funds for this program also help to support Farm Food Program initiatives and School Visitation Program.

If you would like to contribute or have questions about any of these opportunities, please contact us at 216.368.0274 or visit our website and Facebook page. ❖

**Squire Valleevue and
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<http://case.edu/farm/>

