

## EQUIPMENT/FACILITIES – Michigan State University

### Kellogg Farm, Hickory Corners, MI.

This farm, embedded within the W.K. Kellogg Biological Station (KBS) in Southwest Michigan, is comprised of 526ha of managed agricultural lands for cropping system and dairy research / extension. The agricultural lands include 100 ha of fenced pasture and 100 ha of small crop fields divided by mowed grass alleys. Buried irrigation lines with strategically located risers serve much of the pasture and small crop fields. The Pasture Dairy Center utilizes rotational grazing and milks up to 155 cows using Lely A3 Automated Milking Systems. The KBS Long Term Ecological Research Program studies the ecology of row crop, perennial crop and unmanaged ecosystems. The Great Lakes Bioenergy Research Center (GLBRC) aims to understand the ecosystem services provided by alternative biofuel cropping systems

Office, classroom (120 m<sup>2</sup>), and meeting space are available at the Kellogg Farm office building, while the KBS Academic and Stack buildings provide much additional office and classroom space. The KBS Conference Center is a full service conference facility, providing lodging, meals and meeting space. Multiple field laboratories are available for use, including those dedicated to pasture, farming systems and agroecology. Two heated shops are available to work on equipment. Specific field equipment available for use is listed below.

### Plot Scale Equipment

- Tillage
  - Unferverth S-tine 7 shank mulch tiller SLA3-7
  - Glencoe 12' Field Cultivator
  - JD 726 Soil Finisher (15')
  - Krause 2204A Disc (12')
  - White Model 6342 Rollover plow
  - JD 7 shank chisel plow
  - JD 960 Integrated soil finisher (10')
  - Hiniker 5000 row crop cultivator (15')
  - JD 660 Mounted Roto-tiller (5')
  - Rotary hoe (15')
- Planting
  - JD 450 Grain Drill – Conventional (10')
  - JD 7300 integrated row crop planter (w/ no-till attachments) (15')
  - JD 750 No-till Drill (10')
  - JD 1590 No-till Grain Drill (15')
  - Gandy Air Seeder
  - Great Plains Min Til Drill (5')
- Fertilizing/Spraying
  - Demco Integrated 200 gal Liquid Fertilizer Applicator (15')
  - Demco 15 ft Integrated Sprayer
  - Gandy Fertilizer Applicator
- Mowing
  - JD 115 Flail Mower (15')
  - JD 10' brush hog

- 6' brush hog
- Exmark 72 inch mower
- Exmark (Kubota) 72" Mower (Ser # 757673) ?
- Forage
  - JD 3430 Self-propelled haybine (12')
- Harvesting
  - NM-Elite IPI Plot Combine (Wintersteiger)
  - Goosen Chipper/Shredder
  - Almaco :PR-UMB-G Low Profile Thresher
  - Seedburo ECS-G Ear Corn Sheller
  - Unferverth weigh wagon
- Truck / Transport
  - W-W flatbed trailer (10 x 882) - #118
  - Chevy - 2015 Silverado 4x4 White #1605
  - Dodge - 2001 RAM - #231
  - JD XUV Gator 620i 4x4
- Tractors
  - JD 6420 Tractor
  - JD 4400 Tractor
  - JD 5320 Tractor
  - JD 7420 Tractor
  - JD 5410 with loader
- Other
  - Gilbert CS 4100SS Commander IV power washer
  - Row Crop Flame Cultivator (15')
  - Millcreek Model 50 manure spreader
  - Agritek D596 driveway scraper
  - Crop Residue Roller Crimper (10')
  - Traveller Irrigation Unit (x2)

## Field Scale Equipment

- Tillage
  - International Cultipacker - 30 disc - 11 ft
  - Glencoe Chisel Plow (9 shank)
  - JD 970 Cultimulcher (12')
  - Sunflower 6332-26 Soil Finisher (26')
  - Hiniker 5000 cultivator (15')
  - JD 856 Row Crop Cultivator (15')
  - Yetter 3415 rotary hoe (15')
  - Krause 2204A Disc (12')
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- Planting
  - JD 1590 No-till grain drill (15')
  - JD 1780 No Till Row Crop Planter w/ 2x2 Liquid Fertilizer (15' w/ rate controller & SeedStar 2)

- Spinner-Spreader for ATV/Tractor seed spreading
- Fertilizing/Spraying
  - Progressive Model 2400 28% applicator (15')
  - Liquid fertilizer wagon (Light blue one – 1,000 gallon)
  - Demco Sprayer (45')
- Mowing
  - BMB Dynaflail mower Model 180 (15')
- Forage
  - NH FP230 Pull Type Forage Chopper (with haylage and corn silage heads)
  - JD 936 Mower Conditioner
  - Kuhn SR112 GII Speedrake
  - NH1038 Bale Stacker Wagon
  - NH 326 Small Square Baler
  - Hay rake pivot hitch
  - NH 258 Hay Rake x 2
  - Two Hay Wagons
  - NH BR7060 CropCutter Round Baler
  - Kuhn Bale Wrapper RW 1600
- Harvesting
  - JD 9410 Combine
  - JD 693 Corn Head with JD9410 Combine (15')
  - JD 915 Grain Head with JD9410 Combine (15')
  - Westfield 8/60 grain Auger
  - Westfield MK 100-71 Grain Auger
  - Truck Scale
- Truck/Transport
  - 2000 International F9200 – with dump box and lift axle
  - 2000 International F8100 – with dump box and lift axle
  - Ford Sterling Semi-tractor
  - 7800 gallon tank trailer with pump kit
  - Northern 53' Dropdeck Semi Trailer w/ beaver tail
  - 2002 Dodge RAM 1500
  - 2009 Dodge RAM BR2500 (4x4)
  - 2009 Dodge RAM #1260
  - Tilt Trailer
- Tractors
  - JD 7600 Tractor
  - JD 6155R w/ Autotrac and JD 2630 Monitor
  - JD 7710 w/ Loader
  - JD 6170M
  - JD 2155
- Other
  - Sandberger 300 Compost Turner
  - Hobbes Reel Rain Traveller
  - Balzer Manure Tank Spreader
  - Haybuster 3106 Rock Picker

## Pasture Dairy Center Equipment

- Feeding
  - NH Tub Grinder
  - LPM-600 Roller Mill
  - Kuhn /Knight VT132 Feed Wagon 2013
  - Coney Bearicades for Robot Barn
  - D.C. Martin portable feed scale
  - 1845C Case Skid Steer
  - Case SR210 Skid Steer
  - Lely Supplemental Cosmix Feeders (x2)
  - Small Feed Storage Bins
- Forage Harvest / Pasture Management
  - C-Dax Pasture Meter
  - Electronic Step Plate Meter
  - NH 258 Hay Rake
  - NH BR7060 CropCutter Round Baler
  - Kuhn Bale Wrapper RW 1600
  - Shaver HD10 post driver
  - JD MX10 Bush Hog
  - Blue Diamond BD060 Bale Grabber for Skid
  - Two Hay Wagons
  - Kubota DM2028 Disc Mower (9')
- Milk System
  - Lely A3 Astronaut (x2)
  - Lely Grazeway (x2)
  - Lely Luna Brush (x2)
- Truck/Transport
  - 5<sup>th</sup> Wheel Livestock Trailer
  - Calico 14 ft Black Livestock Trailer
  - 1997 GMC Sierra - (4x4)
  - 2003 Dodge RAM 1500
  - 2015 Chevy Silverado 4x4
  - 2001 Dodge RAM 1500 - #147
  - Kawasaki V-Twin 750 ATV
  - Polaris 570 Sportsman
  - 2010 John Deer Gator TX 4x2
- Tractors
  - JD 6400
  - JD 6215 Tractor
  - JD 5425 w/ 542 loader (2007)
- Livestock Handling
  - Portable Cattle Scale & Trailer - Ranger
  - Calf Cart
  - For-Most A-25 Self Catching Head Gate

- Corral System in Heifer Pasture
- Manure Handling
  - Kuhn/Knight 8124 Side Manure Slinger
- Irrigation
  - K-line irrigation system (200 acres)
- Other
  - Alkota Powerwasher for Robot Barn
  - Buried Water Line Throughout Pasture

#### Lab Equipment

- Analytical Scale with 0.01 gram sensitivity (x3)
- Analytical Scale for larger samples
- Dickey John GAC2000 Moisture Tester
- Dickey John GAC2100b Moisture Tester
- Portable Grain Moisture Tester
- Four Large Drying Ovens
- Walk In Cooler
- Chest Freezer
- Wiley Mill