



# Supporting Food and Agriculture in the U.P.

The Upper Peninsula Research and Extension Center (UPREC) was established in 1899 and serves as a hub for integrated crop and livestock research in the unique environment of Michigan's Upper Peninsula (U.P.). Applied research on forage & beef cattle, field crops, and organic vegetables is conducted at our 1,262-acre facility and on collaborating farms across the U.P. Outreach efforts focus on expanding capacity in local food and agriculture systems by educating producers and non-farmer audiences about the importance of local agriculture for community prosperity.

## Forage and Pasture-Based Beef Cattle

Forage and cattle are the foundation of U.P. agriculture; grazing can lower producers' cost of production and environmental impact. UPREC maintains a cow-calf herd of 312 Red Angus-Akaushi cross cattle bred for exceptional performance and meat quality when raised on pasture. The cattle are rotationally grazed in summer and fed baling outside during the winter to integrate them with our cropping system and enhance soil health. UPREC also conducts forage variety testing to identify the best annual and perennial forages for U.P. cattle producers

- In 2018, UPREC evaluated 17 alfalfa, 15 grass, 21 pea-oat and 3 small grain nurse crop varieties for yield and quality. A forage field day attracted 26 participants.
- In 2018, our grass-fed cattle, at slaughter (25 months), had an average live weight of 1227 lbs., carcass weight of 695 lbs., and backfat thickness of 0.33 inches, with 99% grading choice.
- In 2019, UPREC will initiate a new research project comparing the performance and meat quality of grass-finished vs. grain fed cattle, including sensory evaluation of the meat to gauge consumer acceptance.



## Commodity Grains and Specialty Field Crops

Better than 50% of the upward trend in crop yields over the last several decades can be attributed to genetic improvements achieved through breeding and selection. UPREC coordinates research projects evaluating new field crop varieties at sites across the U.P. These projects leverage partnerships between MSU and Michigan's Ag industries to provide growers with unbiased information on variety performance. For most crops, our research accounts for both yield and quality to help growers yield the most value per acre.



- In 2018, UPREC trialed 35 potato, 104 corn, 25 malting barley and 41 soybean varieties. Field days reached over 117 participants.
- The UPREC malting barley quality lab analyzed over 200 samples in 2018 to provide growers and maltsters critical information to support growth of the craft beverage industry.



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## Supporting Food and Agriculture in the U.P., continued

### Organic Vegetables and the Next Generation of Farmers

Development of robust local food systems supports the long-term health and vitality of Michigan communities. The North Farm at UPREC demonstrates organic vegetable production and season extension as methods of adding diversity and value to U.P. agriculture. The Apprentice Farmer incubator program supports beginning farmers interested in adopting these methods with access to land, equipment and mentorship at UPREC as they start new farm businesses and help grow the local economy. The North Farm also provides educational opportunities for local students and teachers to cultivate the next generation of farmers and agriculture professionals.

- In 2018, the North Farm hosted Short Courses on topics like organic small grains, integrated pest management, pollinator habitat, and livestock on the small farm, reaching 97 beginning farmers and home gardeners looking to scale-up and deepen their knowledge.
- The Apprentice Farmer incubator program hosted two beginning farm businesses which sold over \$37,000 worth of produce into local markets.
- Staff from the North Farm visited 28 schools and reached 1,112 students with hands-on activities that put their everyday food decisions in the context of our food system.



### The Upper Peninsula Research and Extension Center Team



**Andy Bahrman**  
Laborer 1  
906-439-5114  
bahmana@msu.edu



**Joe Charlebois**  
Ag and Special Equipment  
Operator  
906-439-5114, ext. 228  
charleb2@msu.edu



**Michelle Coleman**  
Secretary  
906-439-5114 Ext. 1  
colema98@msu.edu



**James DeDecker**  
Director of the MSU Upper  
Peninsula Research and Extension  
Center  
906-439-5176  
dedecke5@msu.edu



**Christian Kapp**  
Research Technician  
906-439-5114 Ext. 226  
kappchri@msu.edu



**Floyd Kienitz**  
Ag Laborer 1  
906-439-5118  
kienitz@msu.edu



**Paul Naasz**  
Operations Supervisor  
906-439-5114 Ext. 2  
naasz@msu.edu



**Abbey Palmer**  
Education Coordinator  
906-439-5058  
palmerab@msu.edu



**Allison Stawara**  
Laborer 1  
906-439-5058  
stawaraa@msu.edu



**Darin Tyner**  
Ag Laborer 1  
906-439-5118  
tyner@msu.edu



**Matt Raven Ph.D.**  
Department of Community  
Sustainability, Professor,  
Coordinator, AgriScience  
Education  
517-432-0293  
mraven@msu.edu



**Jason Rowntree Ph.D.**  
Associate Professor, Animal  
Science  
517-974-9539  
rowntrel@msu.edu



**Kurt Thelen Ph.D.**  
Professor  
517-353-0232  
thelenk3@msu.edu



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