

# Northern Michigan FruitNet 2014 Northwest Michigan Horticultural Research Center

## Weekly Update

October 21, 2014

### CALENDAR OF EVENTS

- 11/10-12**      **Farm Transition & Farm Succession Planning**  
NWMHRC
- 12/4**            **Pesticide Applicator Review & Certification/Recertification**  
NWMHRC
- 12/5**            **Pesticide Applicator Review & Certification/Recertification**  
Ellsworth
- 12/9-11**        **Great Lakes Fruit, Vegetable & Farm Market EXPO**  
DeVos Place, Grand Rapids

### 2015

- 1/13-14**        **NW Michigan Orchard & Vineyard Show**  
Grand Traverse Resort, Acme, MI
- 2/18-20**        **MSU Fruit Tree IPM School**  
The Eberhard Center, Grand Rapids
- 3/4**             **Winery Development Pre-Conference**  
MSU – Kellogg Hotel & Conference Center
- 3/4-6**          **Michigan Grape & Wine Conference**  
MSU – Kellogg Hotel & Conference Center

### **MICHIGAN BEEKEEPERS ASSOCIATION FALL CONFERENCE October 24-25**

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**Those interested in beekeeping and pollination services are welcome to attend the Michigan Beekeepers Association Fall Conference in Flint, Michigan, Oct. 24-25, 2014.**

Posted on **October 13, 2014**, MSUE News, by [Ben Phillips](#), Michigan State University Extension

For those interested in beekeeping and pollination services, the [Michigan Beekeepers Association](#) is putting on their annual [Fall Conference](#) Oct. 24-25, 2014 in Flint, Michigan at the [Holiday Inn Gateway Center](#). This two-day event features workshops, a trade show, [honey-](#)

[judging contest](#), and keynote speaker [David Hackenberg](#). Hackenberg is a premier beekeeper, pollinator-health advocate and speaker from Pennsylvania. In addition to having served as the president of the [Pennsylvania State Beekeepers Association](#), the [American Beekeeping Federation](#) and as member of the [National Honey Board](#), Hackenberg is the current chairman of the [Honey Bee Health Advisory Board](#).

On both days, [Michigan State University Extension](#) specialist [Walter Pett](#) and MSU researcher [Zachary Huang](#) will be teaching how to identify and manage foul brood. On Friday, Oct. 24, Huang will also demonstrate how bees see differently from other animals and how this affects their pollination behavior.

Read the [full tentative schedule](#).

Folks can [pre-register online](#) at a reduced cost or on site at full cost. Having a current 2014 MBA membership reduces the cost as well. [Check your membership status](#) and see below for the scale of registration fees.

**Note: Pre-registration will close Wednesday, Oct. 22, 2014.**

### Registration fees

#### Pre-Registered

MBA Member, 2-Day:	\$20
MBA Member, 1-Day:	\$10
Non-Member, 2-Day:	\$40
Non-Member, 1-Day:	\$20
Spouse/Guest, 2-Day:	\$10
Spouse/Guest, 1-Day:	\$5

#### Paid At-the-Door

MBA Member, 2-Day:	\$25
MBA Member, 1-Day:	\$15
Non-Member, 2-Day:	\$45
Non-Member, 1-Day:	\$25
Spouse/Guest, 2-day:	\$15
Spouse/Guest, 1-Day:	\$10

**Volunteers are always needed and welcomed.** Please contact Steve Tilmann, MBA Treasurer, at [treasurer@mba-bees.org](mailto:treasurer@mba-bees.org) to volunteer.

This article was published by [Michigan State University Extension](#). For more information, visit <http://www.msue.msu.edu>. To have a digest of information delivered straight to your email inbox, visit <http://bit.ly/MSUENews>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464).

## FINDING A FAIR COST FOR SHARED IRRIGATION SYSEMS

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**If you can find the true annual cost of an irrigation system it is easy to assess the annual cost of the investment and annual power and labor cost by the number of acre the system provides for each party.**

Posted on **October 15, 2014, MSUE News**, by [Lyndon Kelley](#), Michigan State University Extension, Steve Miller

Estimating annual irrigation cost is the first step in determining a fair system for split irrigation cost between neighbors. Annual irrigation cost can be divided into two categories: annual cost of ownership and the annual cost of operation, mainly the cost of energy and labor. The annual cost of ownership is often estimated by the depreciation, interest, repairs, taxes, and insurance formula which spreads the actual cost of ownership of an equipment investment over its usable lifespan or investment period. A standard procedure is outlined on page 7 of [Michigan State University Extension Bulletin E-2131](#), "Custom Work Rates in Michigan". This formula can provide you with the annual cost of the original investment in equipment and improvements.

Annual operating cost will include an estimate of energy cost and labor attributable to the average operation of the equipment. For calculation purposes an annual use of six one inch applications of irrigation was used. A greater number of small applications will favor systems that have low labor costs, where a smaller number of large applications would favor systems with high labor and low investment attributes. Systems with low energy cost primarily from low pumping cost are favored by higher total annual use where low initial cost often compensate for higher energy cost if a low total volume of water is applied annually.

Examples of estimating annual irrigation costs for common irrigation equipment designs are available at the [Michigan State University Extension irrigation page](#).

Irrigation systems need to be able to replace the typical water use of the plant during a prolonged dry period. System costs increase as capacity increases. Typically water sources capable of 400 to 1200 gallons per minute are used to supply irrigation water. Systems designed to apply 0.25 inch per day, 5 gallons/minute/acre of irrigation, can provide adequate water in all but the most extreme situations. Evapotranspiration rate (E.T.) is a term that represents the daily water lost by the plants maintenance and growth along with the evaporative loss from the soil surface. E.T. rates for almost all crops grown in northern Indiana and Michigan have rates under 0.25" per day for all but a few extreme days.

In extreme situations of average daily temperatures over 90 degrees, low relative humidity and wind, water use may reach .31 to .33 inches per day. Crops that cannot tolerate extremes may need an irrigation system designed to meet a requirement of one inch every 3 days, 6.5 gallons/minute/acre of irrigation. System design capacity of greater than 6.5 gallons/minute/acre of irrigation are only needed in situation where crop management practice result in water application at rate faster than the soil infiltration rate resulting in water loss below the root zone or less than 100% effective water use. For more information see the fact sheet on [Reducing and Evaluating Irrigation Runoff](#)

There are tremendous differences in cost of establishing irrigation. Factors leading to high water source cost, greater than \$50,000, are the reciprocal of what is listed:

- Productive water tables are close to the surface (less than 40 feet)
- Riparian rights to a dependable surface water option adjacent to field

- Ample three phase electric power is readily available near the pumping site
- System is designed for moderate to low pumping pressure
- Hills and steep slopes may require higher pressures and large wetted areas to reduce chance of run-off

Several factors can lead to low water source cost, less than \$15,000. Low distribution equipment costs can be achieved with the right combination of the following:

- Total size of irrigated areas, the bigger the system the lower the cost
- Shape of the irrigated areas, 160 acre squares are hard to beat
- Three phase electric power is readily available near control panels
- • Flat topography, hills and slopes require shorter pivot spans to maintain crop clearance.

Here is an example to help you further understand, dividing cost for a 1320 foot (standard 160 pivot) between two owners. The 160 area in question can be cover by a 1320 foot (standard 160 pivots). Owner A has 120 acre of the area and owner B. has 40 acres. Actual irrigated area is 132 total acres with owner A having 99 acre of irrigated land and Owner B having 33 acres. The annual cost of ownership is estimated at \$95.64 per acre and the annual operating cost is estimated at \$4.36 per acre inch or \$30.50 per acre for a seven inch application year.

A common proposal for a fair sharing of cost would be Owner A purchase and installs the well, pivot and infrastructure on his property, situated to cover both properties. Owner B would pay annually \$3,156 (33 acre \* 95.64 per acre) to cover annual ownership cost of the portion of the machine that covers his 33 acres of irrigated land. Owner B would also compensate owner A for energy cost, \$1,060 (\$30.50 per acre for a seven inch application year \* 33 acres of actual irrigated land).

Owner A would be responsible for the total original equipment and installation cost along with annual energy, insurance tax (if applicable) and repair costs, At the end of the ten year agreement owner A would retain the Equipment. An extended agreement could be drafted using the salvage values in place of new equipment cost at that time.

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### **Donate Venison to Leelanau County Families and Children in Need**

Leelanau Christian Neighbors now accepts donations of venison to its food pantries in Northport and Suttons Bay. Donated venison may also be distributed through LCN's Blessings in a Backpack program which sends a bag of food home with kids in need each Friday during the school year so they won't go hungry over the weekend.

LCN asks that farmers who have DMAP permits consider a donation when the venison is harvested.

Venison is actually donated through deer processors. Tell your processor when you bring in your deer that you would like to donate to LCN. You can donate a whole deer or just one or two pounds.

If you donate a whole deer you pay nothing for processing. The processor is paid a dollar per pound through Michigan Sportsmen Against Hunger. MSAH is funded by license check-off donations.

If you donate a few pounds and keep the rest of the venison, you pay for the processing as you normally would.

All donated venison must be processed in a commercially licensed facility.

Participating processors in Leelanau County are Bunting's Cedar Market and Gabe's Country Markets.

For more information, see the brochure online at <http://issuu.com/lcnerves/docs/venison-online/0>. Or contact Scott Walker at Leelanau Christian Neighbors at 231-386-9206 or [scottwalker@duenorth.us](mailto:scottwalker@duenorth.us)

LCN is a 501(c)3 nonprofit which has helped Leelanau County residents in need for 27 years. Its two food pantries serve nearly 600 families each year, many of whom receive food each week. The Blessings in a Backpack program serves nearly 200 kids. LCN also operates the Baby Pantry and the Neighborhood Assistance Ministry which helps families with financial emergencies such as utility shutoff notices. More than 100 volunteers operate LCN which is supported by 13 Leelanau County churches and a broad base of donors. More information about LCN is available at [LeelanauChristianNeighbors.org](http://LeelanauChristianNeighbors.org).

## WEBSITES OF INTEREST

This issue and **past issues of the weekly FruitNet** report are posted on our website: [http://agbioresearch.msu.edu/centers/nwmihort/nwmihort\\_northern\\_michigan\\_fruit\\_net](http://agbioresearch.msu.edu/centers/nwmihort/nwmihort_northern_michigan_fruit_net)

**Insect** and **disease** predictive information is available at: <http://enviroweather.msu.edu/homeMap.php>

### **60 Hour Forecast:**

<http://www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous46ktvc>

Information on **cherries** is available at the new cherry website: <http://www.cherries.msu.edu/>

Information on **apples**: <http://apples.msu.edu/>

### **Fruit CAT Alert Reports have moved to MSU News:**

<http://news.msue.msu.edu>