



# Farm & Field

Chippewa Valley Agriculture Newsletter

Eau Claire County—(715) 839-4712  
Mahlon Peterson – Agriculture Agent  
Erin LaFaive—Horticultural Educator

Chippewa County—(715) 726-7950  
Randy Knapp – Agriculture Agent  
Jerry Clark – Crops & Soils Educator

June 2009

Volume 13 Issue 6

**INSIDE THIS ISSUE:**

Average Cash Rental Rates	2
Crop and Livestock Enterprise Budgeting	2
Farm Technology Days	3
Blossom End Rot	4
Heat Stress in Dairy Cattle	5
Crop Care Clinic	6

**Greetings!**

Yesterday we had temperatures in the low 90's and today we are back into the mid 70's. It seems our average temperatures are a little high for the week before Memorial Day, but they always change and we do not have any control anyway.

I drove to a swine team meeting in the Appleton area this week and can assure you that "construction season" on I-90 & I-94 is in full roar again this year. I look at it just like many of you regard building and machinery maintenance – it's necessary to keep us from going backwards. A few minutes spent in traffic could be a lot worse if the roads were mud and gravel!

It does not seem possible that it has been 17 years since we hosted Wisconsin Farm Progress Days here in the county, but time flies when you are having fun! Take time to attend this year's Wisconsin Farm Technology Days in Dodge County July 21 – 23.

I hope to see you at some of our upcoming educational meetings and events such as Breakfast in the Valley and the Eau Claire County Fair in July.

*Mahlon Peterson*

Mahlon Peterson  
UW-Extension Agricultural Agent

[mahlon.peterson@ces.uwex.edu](mailto:mahlon.peterson@ces.uwex.edu)

**Calendar**

**June**

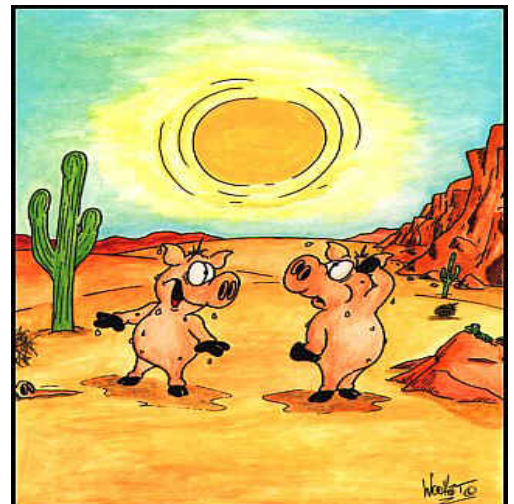
- 1/6 Tractor & Machinery Safety Training—Fall Creek High School
- 10/11 Farm Progress Hay Expo—Hixton
- 12 Breakfast in the Valley—Exposition Center
- 16 Chippewa Valley Forage Council Board Meeting—Loopy's in Chippewa Falls

**July**

- 3 **Office closed—observance of July 4th**
- 4 **Independence Day**
- 6 Meat Animal Project Fitting & Showing Clinic—Exposition Center
- 21/23 Wisconsin Farm Technology Days—Dodge County
- 29/Aug 2 Eau Claire County Fair



Please call our office for more details, registration information, etc.



"Geez.... I'm so hot.... I'm Bacon!"

For more Extension Information go to our website:  
[www.uwex.edu/ces/cty/eaucnaire/](http://www.uwex.edu/ces/cty/eaucnaire/)

# Something To Chew On . . .



Mahlon Peterson Ag Agent  
Eau Claire County

## WISCONSIN AGRICULTURAL STATISTICS SERVICE REPORTS AVERAGE CASH RENTAL RATES FOR ALL COUNTIES

Late winter and early spring seem to be the time when people begin asking about average cash farm rental rates. In the past, many Ag Agents conducted our own cash rent surveys every two to three years to try to gauge what was happening in each of our counties.

The Wisconsin Agricultural Statistics Service recently released its first statewide survey of cash rental rates. The full report is available at their website.

Average 2008 rental rates for non-irrigated crop land in area counties include:

<b>County</b>	<b>Avg Cash Rent (\$/A/year)</b>
Barron	52
Buffalo	71.50
Chippewa	62
Clark	51.50
Dunn	66
Eau Claire	66
Jackson	74
LaCrosse	87.50
Monroe	69
Pepin	85.50
Pierce	76
St Croix	64.50
Trempealeau	80

Remember that average cash rent is just what it says it is without regards to any specific area in a county. We all know that land rents for various amounts based on soil productivity, competition for land, whether it is eligible for federal farm programs, historical yield average and local

competition between potential renters. Eau Claire County average rental rates are listed at \$66 per acre, but the range is \$20 - \$200 per acre. Please call with any questions.

## MANAGING IN DIFFICULT TIMES: BUDGETS AND BUDGETING – CROP AND LIVESTOCK ENTERPRISE BUDGETS

With farm income down and input prices high, even the most seasoned of farm managers are being stressed. This is also when producers are asking what they can do to minimize costs and maximize income to improve margins.

At least three types or levels of budgets are useful in the farm business. A farm manager will find a combination of all three – not necessarily at the same time – to be useful since each one has different characteristics. These three types of budgets are the total farm budget, the enterprise budget and the partial budget.

An enterprise budget is an estimate of the costs and returns associated with the production of a product or products referred to as an enterprise. An enterprise, or profit center, is a distinct part of the farm business that can be analyzed separately. An enterprise is usually based on some production input unit - an acre of land for most crop enterprise budgets, or an individual animal unit for livestock enterprise budgets.

Enterprise budgets are an important tool for planning and for ongoing farm financial management. Crop and livestock budgets can be used to estimate profitability, project cash flows, provide a basis for credit, and

assist in farm planning.

Cost and return estimates are projections for some future time period, such as the coming calendar year or crop year. Without good, historical production and financial records, developing enterprise budgets can be time consuming and frustrating. Historical records are a useful starting point for estimating future costs.

Whether you have good records or not, you may be surprised at some of the cost changes you discover and budget for in your enterprise budgets. You may also be surprised at the net returns above variable and total costs. If you do not have the financial and production records necessary to develop an enterprise budget, you can begin by using budgets from other sources, such as the University of Wisconsin-Extension, which can provide information for planning and decision making. The Enterprise Budgets section of the UW-Extension Farm Team web site (<http://www.uwex.edu/ces/farmteam/index.cfm>) has many examples of field crop, dairy, and livestock budgets. If you use this method, you will need to adjust the budget to reflect your specific situation.

Budgets generally include variable operating costs, fixed costs, and expected production returns. Variable costs are those that vary with output within a production period. Examples include seed, fertilizer, chemicals, purchased feed, supplements, veterinary costs and medicines, fuel, repairs, and labor. Other terms used to describe variable costs include cash costs (or expenses), direct costs,

and out-of-pocket costs. Fixed costs typically include building costs, depreciation, taxes, interest on investment, land charges, and insurance. A management fee may be included as a fixed cost. These costs are considered to be fixed because they generally remain the same within a production period and do not vary with the level of output. Indirect and overhead costs are other terms used to describe fixed costs.

Total costs are calculated by adding variable, fixed costs and opportunity costs if not already accounted for. Ideally, you want to earn a profit above total costs every year. This is not always possible, since income received can be less than the total costs of production. Should you continue to produce under these circumstances? The answer may be yes if: (1) you are covering variable costs of production, and (2) it is a short-run condition. It is economical to continue production in the short run as long as income is higher than the variable costs of production. In other words, in the short run, you must receive a price that generates a return at least equal to variable costs. In the long run, however, market price and yield need to be high enough to cover total costs of production, including fixed costs. Otherwise, the enterprise will not be financially sound over a period of several years.

To access more information and/or tools to help analyze your situation, link to the Extension Responds web page at: [www.uwex.edu/ces/ag/farmingindifficulttimes.html](http://www.uwex.edu/ces/ag/farmingindifficulttimes.html).

For assistance in making these tough decisions, contact your UW-Extension county agent, your Farm Business and Production Management Instructor in the Technical College or the DATCP Farm Center at 1-800-942-2474.

## **CRAVE BROTHERS TO HOST WISCONSIN FARM TECHNOLOGY DAYS**

Food – Fuel – Future is the motto of the 2009 Wisconsin Farm Technology Days that will be held at Crave Brothers Farm LLC, located in southern Dodge County.

Throughout the three-day event, July 21-23, visitors will have an opportunity to see the latest in technology, enjoy hands on activities, view demonstrations, and learn about new ways for “going green.”

The hosts of the event are innovators in many areas of agriculture. They were among the first in the state to utilize free-stall barns, total mixed ration, and bunker silos. In their quest to stay ahead of the curve, they built a state-of-the-art cheese plant in 2002. They have now doubled the size of the plant to accommodate increasing sales of their popular cheeses and increasing milk production on their growing farm.

The Craves also formed a unique partnership with Clear Horizons of Milwaukee on two anaerobic manure digesters that create enough electricity to power 550 average Wisconsin homes – which is more than twice what the farm and cheese factory need.

After operating the first digester successfully for two years, the company built the second digester to stay in pace with the herd that has now grown to 1,100 milking cows. Heifers that the Craves moved back home from satellite farms to the new heifer barns on the home farm provide additional manure for the digester. Besides creating electricity that Clear Horizons sells to WE Energies, some of the solids are used as bedding for the livestock and the rest is the main

ingredient in a potting mix product sold under the EnerGro brand name.

In addition to the traditional field demonstrations at the July show, the Dodge County farm technology days planners are working with the custom manure haulers organization to demonstrate environmentally safe methods of distributing manure on the farm. There will also be farm tours via trams to highlight all of the unique aspects of this modern dairy operation.

The show offers something for everyone. Youth activities will center around changes and the emphasis will be on healthy eating; Family living will feature a variety of entertainment and education. A “Family Farm Adventure” tent will feature educational, fun activities for the younger children. A crafts tent will feature unique, hand-made items. The University of Wisconsin’s Farm Progress Pavilion will feature a wide variety of educational topics including digesters, composting, cheese making and animal identification.

More than 1,000 commercial exhibitors will also demonstrate or talk about the latest products and service offerings. The show is presented in partnership with the Wisconsin Farm Technology Days, Inc., UW Extension, and the host county. Countless volunteers have been working for the last three years with the executive committee from Dodge County on plans for the 2009 show.

Admission is \$5 person; 12 and under is free. Learn more about specific activities planned for the 2009 show on the Web site at <http://www.dodgefarmtech.com>.



# Greenhouse Gossip . . .

**Erin LaFaive**

**Eau Claire County Horticulture Educator**



## Blossom End Rot

*Ann Joy and Brian Hudelson, UW-Madison Plant Pathology*

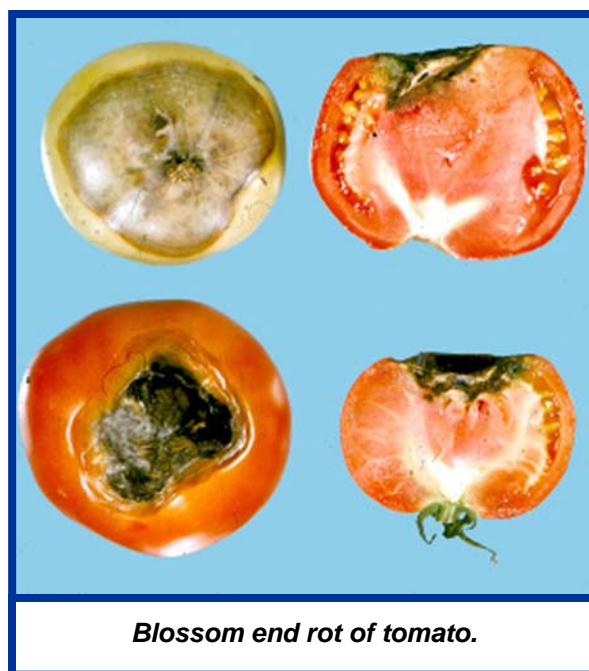
**What is blossom end rot?** Blossom end rot is a physiological disorder of tomato in which the tissue of the blossom end of the fruit (the portion of the fruit opposite the stem) breaks down and rots, thus reducing yield. Pepper, eggplant and squash (e.g., zucchini) fruits can also be affected.

**What does blossom end rot look like?** Blossom end rot often occurs on the first fruits formed on plants. Initially, water-soaked spots (resembling small bruises) appear, most often on the blossom ends of fruits. On peppers these spots can resemble sunscald and can form on the sides of the fruits near the blossom end. Spots enlarge, becoming dark brown to black, sunken and leathery. Half the fruit may eventually be affected. Sometimes, when a fruit is cut, the exterior will be sound, but the interior will be discolored and shrunken. Often, bacteria and fungi invade the discolored areas, leading to tissue decay.

**What causes blossom end rot?** Blossom end rot is caused by a lack of calcium in the fruit. This lack of calcium may be due to low calcium levels in the soil. More often, there is plenty of calcium in the soil, but its availability for uptake and transport to fruits is impaired. Drought stress, alternating soil moisture extremes, and damage to a plant's roots all can inhibit calcium uptake, as can waterlogged or cold soils, and high concentrations of ammonium ( $\text{NH}_4^+$ ), potassium ( $\text{K}^+$ ), and magnesium ( $\text{Mg}^{++}$ ) cations in soil. Movement of calcium within plants depends on active transpiration (i.e., loss of water through above-ground plant parts). Because leaves transpire more than fruits, calcium moves more easily into leaves where it remains. Calcium is not later redistributed from leaves to fruits. This preferential distribution of calcium to leaves can be made worse by over-fertilizing with nitrogen which promotes excessive

production of leaves. In addition, high relative humidity, OR low relative humidity in combination with hot, windy weather can limit transpiration, thus preventing calcium from reaching fruits.

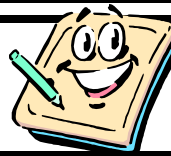
**How can I control blossom end rot?** Avoid conditions of too much or too little water. Irrigate evenly and mulch the soil to retain moisture during dry periods. Avoid cultivation near plants that would damage roots. Use nitrate ( $\text{NO}_3^-$ ) rather than ammonium ( $\text{NH}_4^+$ ) forms of nitrogen fertilizer. DO NOT over-fertilize. Have your soil tested periodically to determine if there is sufficient calcium in the soil. If not, add calcium (e.g., lime, bonemeal, eggshells). Check the soil pH on a regular basis, particularly if you use lime as a calcium source. A pH of about 6.5 is ideal for growing most vegetables. Finally, grow vegetable cultivars that are tolerant of calcium deficiencies and less likely to show blossom end rot symptoms.



**Blossom end rot of tomato.**

# Randy's Rumors . . .

Randy Knapp, Chippewa County Agricultural Agent



## Heat Stress in Dairy Cattle

As I write this article, we have experienced our first day of temperatures of 90°F or above. On average, the Chippewa Valley experiences 13 days per year of temperatures above 90°F.

Many people enjoy these summer temperatures. On the other hand, our livestock have difficulty handling these high temperatures. The ideal temperature for the dairy cow is between 41 and 77° F. At temperatures above 77°F, cows have to use energy to cool themselves by heat loss through the surface skin or respiratory tract.



Signs of heat stress in lactating cows are obvious—reduced milk production and lethargic behavior. Moderate signs of heat stress may occur when the temperature is between 80-90°F with humidity ranging from 50 to 90 percent. These signs include rapid shallow breathing, profuse sweating and an approximate 10 percent decrease in milk production and feed intake. At higher temperatures 90° to 100°F, the cow will show severe depression in milk yield, 25 percent or greater. She will begin exhibiting open mouth breathing and panting.

Higher producing cows are more sensitive to heat stress because of their food intake. They must rid themselves of the extra heat generated as a result of metabolizing greater nutrients in the feed. Two pounds of milk are lost for every pound of decreased dry matter intake when temperature and humidity levels are high.

The first step to reduce heat stress is to provide cool water and shade for all milking and dry cows, plus heifers. Water is the primary nutrient needed to make milk, accounting for over 85 percent of the content of milk. The cow's water requirement increases significantly as environmental temperature rises.

(Table I).

Ensure enough water space by providing at least 2 water locations per group and having a water supply of at least 3-5 gal/minute. Water should be clean and cool.

Shading from direct sunlight allows cows to rest in a more comfortable environment. Portable shades can be used and rotated to a new area in different pastures if they

TABLE 1. Relative changes in expected dry matter (DMI) and milk yield and water intake with increasing environmental temperature.

Temperature (°F)	Expected intakes and milk yields		
	DMI (lb)	Milk Yield (lb)	Water intake (gal)
68	40.1	59.5	18.0
77	39.0	55.1	19.5
86	37.3	50.7	20.9
95	36.8	39.7	31.7
104	22.5	26.5	28.0

are available. At least 25 (preferably 50) square feet of shade per cow should be provided.

The second step to alleviate heat stress in lactating cows is to provide a more comfortable environment in the holding pen.

Cool the holding pen area with a combination of shade, air movement and water. When combined with air movement, water can increase cooling ability of the cow. However, adding water in humid or poorly ventilated holding pens or barns can make the situation worse. The water can actually hold the heat in the cow if it does not evaporate from the cow.

To provide cooling for the holding pen or loafing area, sprinkling with enough water to soak cows to the skin and then running fans constantly at 5 to 7 miles per hour is recommended. These fans increase evaporation of water which helps cool the cows.

Another step to decrease heat stress is to increase the density of the ration. High quality forages should be available to the animal. The primary reason that cows decrease in milk production during hot weather is that the cows eat less. Since cows will be consuming less as temperatures increase, increasing the energy density of the diet can in part compensate for the decrease in dry matter intake. (Table I).

Keeping lactating cows cool can provide a good return on your investment. It makes cows more comfortable, thereby making them more productive.

**Jerry Jargon**

Jerry Clark

Chippewa County Soil &amp; Crops Educator



## Crop Care Clinic Scheduled for June 26

The Chippewa County UW-Extension Office will sponsor a Crop Care Clinic workshop on June 26, 2009 at the Chippewa County Farm plots north of Chippewa Falls from 10:00 a.m. until 12:00 p.m., with lunch to follow. Crop care clinics are designed to sharpen basic crop management skills as well as introduce new skills to producers. This is not a traditional field day. Crop care clinics have been designed to be primarily in-the-field and 'hands-on' training. Focus of the field day will be on corn, soybeans, and alfalfa.

Speakers and topics to be covered at the Crop Care Clinic will include:

**DR. CHRIS BOERBOOM**

UW-Extension Weed Specialist

*'Effectiveness of Pre-Emergence  
Weed Control'*

Several plots of different herbicide products and time of application will be on display to discuss effectiveness of different herbicide programs.

**DR. EILEEN CULLEN**

UW-Extension Field Crop Entomologist

*'Managing Insects on Corn,  
Soybean & Alfalfa'*

This hands-on session will involve using sweep nets and threshold levels to determine management strategies.

**DR. PAUL ESKER**

UW-Extension Plant Pathologist

*'Diagnosing Corn & Soybean  
Diseases'*

Management of common crop diseases will be evaluated and displayed.

**JERRY CLARK**

Chippewa County Crops &amp; Soils Educator

*'Corn Growth & Development'*

The heart of this discussion will be on staging crop plants and troubleshooting.

There is no cost to attend the Crop Care Clinic, and a lunch will be provided. 2.0 CCA continuing education credits are available. Pre-registration is encouraged to determine educational materials and lunch.

The Crop Care Clinic and Chippewa County Farm plots are located east of Seymour Cray Boulevard and County Highway I.

***For more information or to pre-register,  
contact the  
Chippewa County UW-Extension Office,  
(715) 726-7950.***

# *Farm & Field Newsletter*

## *Chippewa Valley Agriculture Newsletter*

*A newsletter designed to meet the needs of farmers and agribusiness professionals  
in Eau Claire and Chippewa Counties.*

*Published monthly by the Eau Claire County Extension Office, Altoona, Wisconsin*

An EEO/Affirmative Action employer University of Wisconsin-Extension provides equal opportunities in employment and programming including Title IX and ADA requirements.

Requests for reasonable accommodations for disabilities or limitations should be made prior to the date of the program or activity for which it is needed. Please do so as early as possible prior to the program or activity so that proper arrangements can be made. Requests will be kept confidential.



Eau Claire County UW-Extension Office  
227 1st Street W  
Altoona WI 54720

