Weather variability is one of the largest sources of risk in agricultural production. Not surprisingly, weather is probably right at the top of the list with market prices – for the most frequently discussed topics of farmers. Congress, recognizing the impact of weather variability on crop production and the resulting variability of farm income implemented a special tax provision dealing with crop insurance and disaster payments.

**Code Section 451(d)** provides that under certain circumstances crop producers reporting on the cash method of accounting may elect to report crop insurance and disaster payments as income of the tax year following the year of crop destruction or damage. To qualify for this election, the taxpayer must establish that the income from the destroyed or damaged crop would have been included in income for a taxable year following the year of destruction or damage under their normal business practices.

Crop disaster program payments received from the federal government qualify for Code Section 451(d) election if a natural disaster prevented a farmer from planting crops, or destroyed or damaged crops that had already been planted.

**Example:** Fred Farmer operates a grain farm and uses the cash method of accounting. During 2012 Fred Farmer received the following amounts of crop insurance proceeds for the damage caused to his growing crops by a June 17th hail storm: corn $75,000, soybeans $40,000, and wheat $5,000.

If Fred can establish that under normal business practices he would have reported a substantial amount of the income from the 2012 crops in a subsequent tax year – he may report the insurance proceeds as 2012 income or he can elect to defer the entire $120,000 of insurance proceeds to 2013.
Crop Insurance ...Continued....

Some Observations:

* Substantial portion of the crop is considered to be more than fifty percent.

* Since the insurance proceeds in the example above are attributable to crops representing a single trade or business, John may elect to defer all or none of the insurance proceeds. He may not allocate a portion of the proceeds to each of the two years.

* To qualify for deferral, the insured must suffer an actual loss to their crop. An important note with this point is that insurance proceeds from revenue based crop insurance must document the loss was due to actual damage or destruction to their crop, rather than due to a reduced market price.

* Taxpayers receiving insurance proceeds in the tax year following the tax year of destruction or damage, include the proceeds as income in the year of receipt without needing to make the Section 451(d) election.

Given this year’s dry weather, a large volume of insurance claims are expected be filed this year, communicate with your insurance agent regarding when your claim will be settled – this year or next year. Given you have to recognize all or defer all the crop insurance and disaster payments, consulting with a professional tax advisor prior to the end of your tax year – could pay substantial dividends.

Parman R. Green, Agriculture Business Management Specialist, University of Missouri, , MO.

The Southeast Missouri Food Bank is eager for donations of specialty crops. The food bank will bring a 24 foot box truck to pick up available produce. Edible produce (seconds are welcome) should be in a crate or box.

Contact James Landewee, Operations Director at 573-651-0400 several days ahead of time if possible and specify if a refrigerated truck is needed. He will provide you with a tax receipt for anything you donate to use as a tax right-off.
Missouri Rice Diseases: Scout Close Now

The hot dry weather may slow some diseases from rapid development but, many start right in the field and progress along with the crop. It’s a good idea to keep an eye on the crop, especially now, to protect it through the fruiting stage. It’s important to protect the top three leaves, especially the flag leaf.

**Sheath blight** can occur quickly with high pre-flood nitrogen rates during stem elongation, panicle initiation, booting and beyond. Sheath blight appears as water-soaked spots on sheaths near the water line starting from tillering. The disease usually develops from fungal structures that float on the flood water. Sheath blight epidemics can begin over a period of weeks during the growing season. Therefore, the growth stage when the disease is initiated has significant effects on crop damage and the need for fungicide application. Experiments have shown that sheath blight epidemics in field plots can be initiated artificially at the green ring, panicle differentiation, early boot, and late boot growth stages indicating a susceptible variety can get infection at any stage of the crop development if the environment is favorable. Scouting for sheath blight should begin about green ring to ½ inch internode elongation in highly susceptible varieties.

**Rice blast** appears early or late depending on the pathogen source(s), the resistance level of varieties, and the environment. The pathogen spores (known as conidia) can be carried in seed, may survive in soil on infected plant debris or can be blown by wind from nearby infected fields. The spores produced on young leaves can cause secondary infection in the necks of panicles within the same field. By now most leaf infections may have “disappeared” into the lower canopy due to crop growth or dry conditions. In some cases, neck blast occurs without obvious leaf symptoms. Blast is favored by long dew periods, cloudy, rainy weather, and excessively high pre-flood nitrogen rates. Scout early and pay more attention to the area of the field near the tree line. Keeping a permanent flood (minimum four inch depth) will suppress the disease. Apply the appropriate fungicide timely at the right rate, if needed.

**Brown spot** can occur at any crop development stage but typically shows after the tillering stage. Brown spot is worse if rice suffers potassium or nitrogen deficiency and can be influenced by other stresses. Cold water areas of rice fields may suffer more brown spot. In fields with severe potassium deficiency, brown spot can be serious, attacking kernels as well as leaves. All varieties have some brown spot resistance under proper fertility and other management, and fungicides have not proven economical. Scout for brown spot starting from tillering stage on as it is a good indicator of plant stress, many of which can be corrected to avoid more severe disease and other problems.

**Kernel smut and false smut** are now considered more serious diseases of rice. In 2011, 30 percent grain loss was observed in some fields that had high levels of pre-flood nitrogen. These diseases cannot be scouted for but can be predicted by field history such as previous smut problems, pre-flood nitrogen practices (high rates promote disease) and variety (Francis, Cocodrie, Chenierea and RoyJ are more prone to severe smut). The fungicide used is preventative and timely application with the right rate is extremely important. It will not cure it.

**Bacterial Panicle Blight** is now one of the most important diseases of rice in the US. In 2010 and 2011 the disease was widespread and ruined many rice fields. Scouting for bacterial panicle blight is currently not possible. The source of the bacteria could be seeds or crop residues and the disease may be initiated early in the season but symptoms are not seen until heading. There is currently no preventive or curative chemistry for this disease. Early planting, balancing appropriate macro- and micro-nutrients and water management are associated with lower disease in field surveys. Overall, rice is a valuable crop and scouting for developing diseases and other problems could mean big money if a problem is prevented or corrected in time. Once diseases or other problems have advanced too far, salvage treatments or methods may be less than satisfactory.

Sam Atwell, Agronomy Specialist, University of Missouri Extension, New Madrid, MO.
Production of Vegetables in High Heat

Our area of Missouri hit the D2 and D3 drought levels as of the last week in June. This equates to severe and extreme drought.

The lack of rain will likely impact the growth of vegetables under irrigation and will certainly do so for those that lack water. Even with continued irrigation the high heat will affect both plant health and fruit production. Irrigation can help to reduce the impact of drought on vegetables but it is hard to combat the impact from high temperatures.

To compound the issue the lack of cloud cover has allowed unlimited solar radiation to contribute to the build up of heat inside plant tissue and wind has helped to lower what little humidity there is around the plant.

Many vegetables begin to lose their ability to set fruit when temperatures reach 85°F. This is especially true when the night time temperatures stay high and do not allow plants to cool down overnight.

What occurs when temperatures remain high is a breakdown of enzymes which vegetables use to produce fruit. Plant stress increases as respiration during the night outpaces photosynthesis during the day. Photosynthesis slows even further as day temperatures reach 94°F. The speed of respiration increases as night temperatures remain above 80°F.

Plants in this type of stress are not producing food and use up stored reserves. The proteins and sugars that grow fruit are not produced and therefore, fruit doesn’t set.

In a commercial operation mulch and good watering practices are the best methods for reducing the impact from heat.

Sarah Denkler, Horticulture Specialist, University of Missouri Extension, Poplar Bluff, MO.

http://extension.missouri.edu/butler/MoAgNews.aspx
What is going on with the weather? Clearly, there has been minimal rainfall over the last several weeks, and definitely not enough to maintain healthy crop conditions for those without irrigation. I have already heard farmers talk about taking the losses, and then chopping corn for silage. However, if you have irrigation, yields still may be good.

Within the University of Missouri Extension website, is the Ag Electronic Bulletin Board at www.AgEbb.missouri.edu. The AgEbb hosts data from a network of weather stations in Missouri. Southeast Missouri is blessed with numerous stations, including those at Steele, Cardwell, Portageville, Delta, Charleston, Glennonville, Clarkton and the University of Missouri Delta Center at Portageville. Data from each of these stations is downloaded daily, where it is then compiled. The crop usage or evapotranspiration is calculated for the major crops in the region. To access this information go to http://agebb.missouri.edu/weather/stations/index.htm, and then scroll down to the weather station nearest your farm.

Presently, for most crops, especially those that are canopied over, the water usage is reaching as high as .38 inches per day. Or in other words in three days these crops are using 1.14 inches of water. In this part of the country, where pumping costs are somewhat inexpensive, it would be wise to try to replace that amount of moisture.

The evapotranspiration is a function of the temperature (both high and low for the day), relative humidity, wind speed, and solar radiation. Water usage goes up when temperatures climb, relative humidity is low, wind is blowing and the sun is out. Over the last several weeks, all these factors have come into play. However, at night the outside air temperature is cooling down – usually in the high 60’s to low 70’s. This is a function of the low humidity that we are experiencing during the day.

Even though we are using an enormous amount of water, with lower nighttime temperature and a high solar radiation – we may still have good to excellent yields – if the crop is not allowed to stress from the lack of moisture. Additionally, cotton among other crops responds to solar radiation. With the clearer skies, because of the lack of humidity, cotton yield could be good. The bottom line is – keep the crop in good shape with irrigation, if possible, over the next few weeks – it will pay.

Van Ayers, Agriculture and Rural Development Specialist, University of Missouri Extension, Bloomfield, MO.
Rainfall is continuing to avoid southeast Missouri causing drought conditions to become more severe as the temperature remains high. For most of the area, pastures are poor to very poor. Health issues for animals on poor pasture include nitrate poisoning in animals, especially those grazing Johnson grass and sorghum-sudan grass. Some local University of Missouri Extension offices have access to a quick test for nitrates. You can bring in samples of suspect grass and we can determine if nitrates are present. If nitrates are found it is recommended to send a sample off to a lab to evaluate the concentration of nitrates in the forage. The table below outlines the level of forage nitrates certain classes of animals can tolerate.

Another issue to be aware of when pastures are short is animals can consume poisonous weeds they would normally avoid. Providing animals with plenty of forage can help alleviate this issue. Ask your local Extension office for MU Guide 4970 to determine if you have any of the more common poisonous weeds in your pastures.

Kendra Graham, Livestock Specialist, University of Missouri Extension, Greenville, MO.

<table>
<thead>
<tr>
<th>NO3-N</th>
<th>NO3 ppm</th>
<th>Category</th>
<th>Recommendations of Quantitative Nitrate Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 550</td>
<td>0 to 2,500</td>
<td>SAFE</td>
<td>Forage is generally safe to feed to all classes of livestock</td>
</tr>
<tr>
<td>550 to 1,100</td>
<td>2,500 to 5,000</td>
<td>CAUTION</td>
<td>Forage with this nitrate (NO3) content can cause a problem with pregnant and young animals. Do not feed forage with nitrate levels this high in combination with nonprotein nitrogen supplements, and limit forage with NO3 levels this high to one-half of total ration.</td>
</tr>
<tr>
<td>1,100 to 3,400</td>
<td>5,000 to 15,000</td>
<td>DANGER</td>
<td>Limit forage with this NO3 level to one-fourth of total ration. Should supplement forage of this type with energy, minerals and vitamin A.</td>
</tr>
<tr>
<td>More than 3,400</td>
<td>More than 15,000</td>
<td>TOXIC</td>
<td>Forage with this NO3 level or higher is toxic and should not be fed under any circumstance. If forage with this NO3 concentration must be fed, it should be mixed with other feed and make up no more than 15 percent of the total ration.</td>
</tr>
</tbody>
</table>
Symptoms of bacterial blight have been observed on cotton plants in some southeast Missouri fields during the last 14 days. The symptoms are black, angular-shaped spots visible on both sides of the leaves. These spots are slightly smaller than a pencil eraser, and many spots may merge to kill large parts of leaves. The diseased tissue will remain black, and the infected leaves may begin to turn yellow and then defoliate if infection is severe. So far this disease is only on lower and middle plant leaves. It will probably not lower yield if only a few lower leaves are damaged, but it will lower yield if it spreads to upper plant leaves and especially if it spreads to bolls and causes boll rot.

Control of bacterial blight of cotton is difficult. I have seen no research results that show this disease can be managed by treatment of the plants with a bactericide or fungicide. However, farmers can take action to slow the spread of this disease to top leaves and bolls this year by restricting plant growth through aggressive use of growth regulators. This is because dew stays on leaves of rank-growth cotton until late morning, and the bacteria that cause this disease spread more when cotton leaves are wet for long periods. Air circulates better through small cotton plants, 30 inches tall, than rank-growth plants and this helps dew dry more rapidly in the morning. Crop rotation will help control this disease, but fields must be left out of cotton for one or more years. The best method to avoid bacterial blight is to plant resistant cotton varieties.

Bacterial blight developed last year on cotton in some fields in southeast Missouri, north Mississippi, and east Arkansas, and this was the first time I have seen it since the late 1970’s. It was a problem in many cotton fields in the USA until then when it almost disappeared because seed companies began acid delinting cotton seed. This delinting process killed the bacteria that survived on the seed. I have not seen any convincing evidence proving why this disease developed last year and this year. You may contact me at the University of Missouri Delta Center by phone, 573-379-0259, or E-mail, wratherj@missouri.edu, for more information about this or check the Delta Center Web Page (aes.missouri.edu/delta).

Allen Wrather, Professor, University of Missouri Division of Plant Sciences, Columbia, MO.
NEW CROP INCOME OPPORTUNITIES
Opportunities for Bioproducts and Biofuels

Thursday, July 12
11:00 am - 2:30 pm
Miner Convention Center
2610 E. Malone St.
Miner, MO

You are invited to attend a luncheon and educational program on new crops for biofuels and bioproducts that have promising income potential for southeast Missouri. This program will feature several presentations by experts on new crops that are being grown or tested in southeast Missouri. Industry buyers and representatives for some of the crops will be in attendance as will individuals with experience growing these crops. The program includes a complimentary lunch. Specific topics to be covered are:

- Canola production, economics, and markets, along with farmer experiences
- Sweet sorghum and energy sorghum for use in making biofuels
- Giant Miscanthus and switchgrass as biomass energy crops
- Brief review of other crops with bioenergy potential such as sunflowers and energy beets

Attendees will receive an information packet and contact information for various buyers and seed sources for these crops. If you would like to attend, please RSVP to the Sikeston Chamber by calling 573-471-2498 so we can get an accurate count for lunch. **RSVPs are requested by noon on Wednesday, July 11.**

DIRECTIONS TO THE CONVENTION CENTER:

The Miner Convention Center is located just off I-55 at exit #67 for Sikeston/Miner. From the exit, turn west onto Hwy. 62. The convention center is next to the Drury Inn, immediately on the right (north side) of 62 just west of I-55.

Canola being harvested.

This event is supported by a USDA Rural Business Opportunities grant, which is helping fund development of Missouri AgBionworks, a relatively new consortium of organizations working to support farmers in southeast Missouri with new opportunities for adding farm income and boosting rural employment. The consortium includes the Sikeston Chamber of Commerce, Missouri Department of Agriculture, Memphis AgBionworks Regional Initiative, and other partners. For more information, contact Chris Evans, Ag Program Manager with Sikeston Chamber of Commerce, at 573-471-2498.
Cover Crop Workshop / Demonstration

Thursday, July 12, 2012 at
Lincoln’s George Washington Carver Farm in Jefferson City

Sponsored by Lincoln University

The workshop and demonstration consists of a one-day class with field demonstrations. Workshop participants will learn how to integrate cover crops into their cropping systems. The cost is $30.00 which includes lunch. Additionally, each participant will receive a copy of Managing Cover Crops Profitably, a 250-page guidebook to assist farmers when they implement a cover crop program.

"We are excited to bring this kind of educational opportunity to Missouri producers," said Dr. Todd Higgins, Workshop Director and Associate Professor. “The interest in cover crops is ever increasing among producers, large and small, as a means to improve soil health and productivity."

Funding for this program is provided through the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). For more information and to register, please contact Ms. Laurie Gilles by calling (573) 681-6189 or email GillesL@LincolnU.edu.

Delta Center Field Day

August 31, 2012  9am to 2pm
Lee Farm (Junction T and TT)
Portageville, MO.
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If you are interested in receiving this publication via e-mail or being removed from the email list please send a request to denklers@missouri.edu.

Future Meetings & Events -

New Crop Income Opportunities Bioproducts and Biofuels: Thursday, July 12, 2012 at Miner Convention Center in Miner, MO. For more information call the Sikeston Chamber of Conference at 573-471-2498.

Annual Meeting of the Northern Nut Growers Association: July 22-25, 2012 at the University of Kentucky, Lexington. Details can be found at www.nutgrowing.org

Annual Meeting of the Walnut Council: July 29-August 1, 2012 Champaign-Urbana, Illinois. Details will be posted at http://www.walnutcouncil.org

Midwest Boar Stud Managers Conference: August 9-10, 2012 in St. Louis, MO. For more information go to: http://bsmc.missouri.edu/

Missouri State Fair: August 9-19, 2012 in Sedalia, MO

Missouri Rice Field Day: Thursday, August 23 at the Missouri Rice Research Farm near Glennonville, MO. To register call Sam Atwell at 748-5531.

Delta Center Field Day: August 31, 2012. at the Lee Farm in Portageville, MO.