



Number 391  
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#### 1. Corn seeding rate recommendations

The optimal corn population for any situation will depend on the anticipated environment and how the hybrid responds to that environment. Producers can look back to their corn crop from the previous growing season, or wait until the current growing season is nearly complete, and evaluate whether the population they used was adequate.

Individual hybrids can respond differently, but the following guidelines may help in deciding if current seeding rates need to be adjusted. If more than about 5% of the plants are barren or if most ears have fewer than 350 kernels per ear, the population may be too high. If there are consistently more than 500 kernels per ear or if most plants have a second ear contributing significantly to grain yield, the population may be too low. Of course the growing conditions will influence ear number and ear size as well, so it is important to factor in the growing conditions for that season when interpreting these plant responses.

Don't be too concerned if a half-inch or so of the ear tip has no kernels. If kernels have formed to the tip of the ear, there may have been room in that field for more plants contributing to grain yield. Again, "tipping back" will vary with individual hybrids and with growing conditions. Potential ear size is set well before silking and the actual final number of kernels is not determined until after pollination and early grain fill.

Always keep the long-term weather conditions in mind. The drought that affected much of Kansas in 2011 and 2012 made almost any population too high for the available moisture in some areas. Although it's not a good idea to make significant changes to seeding rates based only on what happened recently, it is worthwhile taking into consideration how much moisture there is in the soil profile and the long-term forecasts for the upcoming growing season.

Making a decision on whether to keep seeding rates at your usual level or cutting back somewhat this year if the soil profile is drier than normal is a little like the famous line in the movie Dirty Harry: "How lucky do you feel?" If you think weather conditions will be more favorable for corn this year

than the past two years, stay about in the middle to upper part of the range of seeding rates in the table below. If you do not think growing conditions will improve enough to make up for dry subsoils, you might want to consider going toward the lower end of the range of recommended seeding rates, with the caveat that if growing conditions improve you will have limited your top-end yield potential.

Optimal seeding rates may need to be adjusted for irrigated corn if fertilizer or irrigation rates are sharply increased or decreased. For example, research at the Irrigation Experiment Field near Scandia has shown that if fertilizer rates are increased, seeding rates also have to be increased to realize the maximum yield benefit. Consult seed company recommendations to determine if seeding rates for specific hybrids should be at the lower or upper end of the recommended ranges for a given environment.

The recommended planting rates in the following table attempt to factor in these types of questions for the typical corn growing environments found in Kansas. Adjust within the recommended ranges depending on the specific conditions you expect to face and the hybrid you plan to use.

The following recommend planting rates are from the K-State Corn Production Handbook.

<b>Suggested Dryland Corn Final Populations and Seeding Rates</b>			
Area	Environment	Final Plant Population (plants per acre)	Seeding Rate*
Northeast	100-150 bu/a potential	22,000-25,000	26,000-29,500
	150+ potential	24,000-28,000	28,000-33,000
Southeast	Short-season, upland, shallow soils	20,000-22,000	23,500-26,000
	Full-season bottomground	24,000-26,000	28,000-30,500
Northcentral	All dryland environments	20,000-22,500	23,500-26,500
Southcentral	All dryland environments	18,000-22,000	21,000-26,000
Northwest	All dryland environments	16,000-20,000	19,000-23,500
Southwest	All dryland environments	14,000-20,000	16,500-23,500

<b>Suggested Irrigated Corn Final Populations and Seeding Rates</b>			
Environment	Hybrid Maturity	Final Plant Population (plants per acre)	Seeding Rate*
Full irrigation	Full-season	28,000-34,000	33,000-40,000
	Shorter-season	30,000-36,000	35,000-42,500
Limited irrigation	All	24,000-28,000	28,000-33,000

\* Assumes high germination and that 85 percent of seeds produce plants. Seeding rates can be reduced if field germination is expected to be more than 85%.

For more information, see the K-State Corn Production Handbook, C-560:

<http://www.ksre.ksu.edu/library/crpsl2/c560.pdf>

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## 2. Spring cereals as a cover crop to protect against erosion on fallow ground

Many fields being fallowed for wheat planting this fall currently have very little surface residue, due to poor crop production last year and possibly the harvesting of previous years' stubble for forage. These fields are now susceptible to wind or water erosion.

Where this is the case, producers have the choice of doing nothing or using emergency tillage or manure applications to control erosion this spring and summer. Another option would be to plant spring oats, wheat, triticale, or barley as a cover crop soon, now that the recent snow storms have provided enough soil moisture to get the seed germinated. With moisture, these crops should emerge quickly.

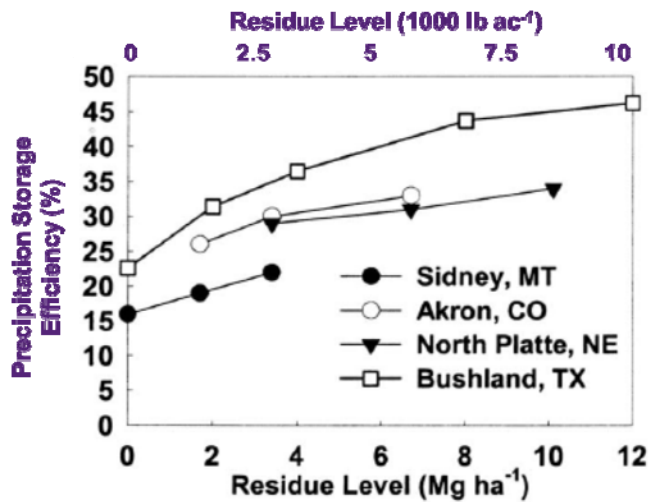
However, the use of a cover crop to control erosion has implications for crop insurance coverage. According to regulations currently in place (see next article), if a cover crop is planted now, the following wheat crop would only be eligible for coverage as continuous crop wheat. In nine southwest Kansas counties (Finney, Grant, Hamilton, Haskell, Kearny, Morton, Seward, Stanton, and Stevens), there is no continuous wheat insurance coverage available, so planting a cover crop now would make the following wheat crop ineligible for insurance.

The crop insurance regulations currently in place apply to 2013 crop wheat. Any changes to insurable practices for 2014 crop wheat (the crop that will be planted this fall) would not be published until June 30, 2013. For now, producers would be taking a risk by planting a cover crop now for erosion control on fallow ground that will be planted to wheat this fall.

If producers want to take that risk and plant a cover crop, options include spring oats, triticale, barley, and winter wheat. Seed supplies and prices of these crops will vary by location. When used as an emergency cover crop to protect against erosion, producers should simply select the cheapest seed available. If spring cereal seed is not available, producers could seed their own bin-run winter wheat. Whatever crop is used, crop insurance regulations would not allow it to be hayed or grazed and still have the following wheat crop be eligible for fallow wheat coverage. The benefit of this practice would strictly be erosion control, so producers should weigh the cost of a cover crop against the cost of emergency tillage. Producers should check with their local NRCS office for recommendations on emergency tillage. This practice may not be recommended for all areas and soil types. See: <http://www.agriculture.ks.gov/divisions-programs/division-of-conservation/soil-erosion-caused-by-wind>

From an agronomic point of view, if fields remain without protective crop residue, weeds, or living cover crops for too long this spring and summer, they will be subject to both wind and water erosion. If a cover crop can be established, this will not only help protect against erosion, but will help increase water infiltration and reduce evaporation.

Research has shown that water infiltration rates are increased with higher levels of surface residue present.

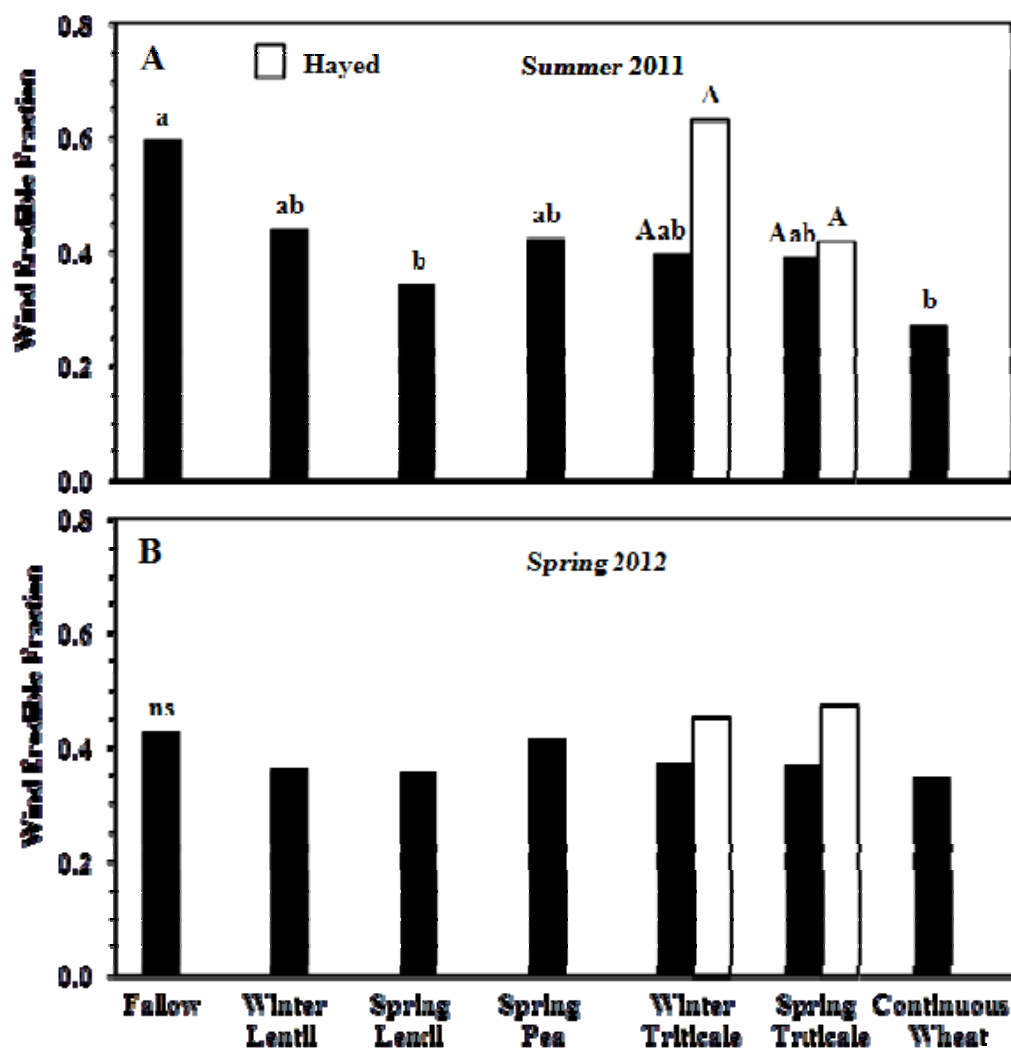


Adapted from Nielsen et al., 2005.

When planting a cereal grain as a cover crop, seeding rates do not have to be as high as normal. All you need are some plants out there to stabilize the soil and stop the soil surface particles from moving, so using half the normal seeding rate should be adequate. For winter wheat in western Kansas, you could get by with about 30 pounds per acre, possibly planted only in the areas of the field most susceptible to blowing. For spring oats in western Kansas, you could get by with a seeding rate of 25 to 30 pounds per acre if it's only for emergency erosion control.

Be sure the crop is terminated before boot stage or sooner. It would be best to terminate the cereal cover crop once it gets about a foot tall. The cover crop should be terminated after it has produced enough growth to cover the soil, but before it uses a large amount of water. The earlier a grass/cereal cover crop is terminated, the faster the remaining residue will decompose all other things being equal. Lignin content increases rapidly after stem elongation and heading, increasing the C:N ratio and resulting in longer-lasting residue.

Growing a cover crop reduced soil susceptibility to wind erosion compared to fallow (Holman and Blanco) but the benefits of the cover are lost within a few months of terminating the cover crop. There was a tendency for cover crops with greater biomass to reduce wind erosion the most, yet spring legumes (lentil and peas) also reduced soil susceptibility to wind erosion.



As a final reminder, producers should check with both the USDA Farm Service Agency and your crop insurance representative about the advisability of a spring-planted cover crop for erosion control. The following article (article No. 3 in this issue) explains the current crop insurance regulations on this. Also for your information, we included another article (article No. 4 in this issue) on crop insurance and cover crops in relation to spring planted crops.

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### 3. 2013 Crop insurance and cover crops on fallow ground Q&A

(Note: The following information from the USDA Risk Management Agency was published November 28, 2012. It is available on the web at:  
<http://www.rma.usda.gov/help/faq/summerfallow.html>)

The following practice is part of the actuarial documents for certain states and counties in the Topeka Region: Summerfallow - A production practice utilized to allow soil moisture levels to increase by leaving acreage fallow for a full crop year. To qualify for this practice for the current crop year, the acreage must not have been planted to a crop the preceding crop year and lie fallow for a full crop year. In addition, any plant growth (e.g., weeds, volunteer crop, etc.) must be terminated no later than JUNE 1 and any later plant growth must be controlled by mechanical or chemical means.

However, if a crop was planted on acreage qualifying as summerfallow the preceding crop year but was terminated by JUNE 1, and any later growth is controlled by mechanical or chemical means, the acreage will qualify as summerfallow the next crop year. For example, if wheat planted in the fall of 2012 (2013 crop year) qualifies as summerfallow and the wheat is terminated by JUNE 1, 2013, and any later growth is controlled by mechanical or chemical means, wheat planted in the fall of 2013 (2014 crop year) will qualify as summerfallow.

#### **Q1: What is the purpose of the "summerfallow" practice?**

A1: The summerfallow (SF) practice is available for non-irrigated wheat in semi-arid parts of Kansas, Nebraska and Colorado. Its purpose is to support the insurability of non-irrigated wheat plantings by reducing crop production risks associated with soil moisture depletion during fallow periods.

#### **Q2: What is RMA's definition of a cover crop?**

A2: A crop generally recognized by agricultural experts as agronomically sound for the area for erosion control or other purposes related to conservation or soil improvement.

#### **Q3: The summerfallow practice is applicable to wheat in my county. From a crop insurance perspective, what are the consequences if I planted a cover crop during the fallow period that precedes planting wheat?**

A3: Planting a cover crop during the fallow period affects the insurability of your next wheat crop. In the above scenario, your next wheat crop would not qualify for the SF practice. Therefore, if continuous cropping is an insurable practice available on the actuarial documents in your county, then your planted wheat can be insured under a continuous cropping practice. However, if a continuous cropping practice is not available, then your planted wheat will not be insurable.

#### **Q4: I harvested a wheat crop in July 2011. On the advice of an agricultural expert, I planted a cover crop the following October. I will terminate it by June 1, 2012, and then plant wheat in October, 2012. Will my October 2012 planted wheat qualify for the summerfallow practice?**

A4: No. To qualify for the SF practice, the acreage must not have been planted to a crop the preceding crop year and remain fallow for a full crop year. In this example, your acreage did not remain fallow for the preceding full crop year, and your next wheat crop will not meet the SF criteria.

RMA recommends that you discuss your plans related to cover crops with your crop insurance agent prior to planting the cover crop.

**Q5: I mechanically prepared to plant wheat in October 2012 (2013 crop year) on SF acreage. However, due to a severe drought, I could not plant due to absence of moisture. Now, the acreage is exposed, and subject to erosion. If I plant a cover crop for conservation purposes on this acreage, will it still qualify as SF acreage in October 2013 (2014 crop year)?**

A5: In this scenario, yes. However, the cover crop cannot be harvested\*, and must be terminated by June 1, 2013. Moreover, all growth after June 1 must be controlled mechanically or chemically.

\*The cover crop can be grazed.

**Q6: I planted a wheat crop in October 2011 (2012 crop year) on SF acreage. It was a drought year, and by early spring, the wheat had failed. I destroyed the failed wheat by June 1, and controlled all later growth by mechanical and chemical means. Will this acreage still qualify as SF acreage in October 2012 (2013 crop year)?**

A6: Yes.

**Q6.1: What if I had cut and bailed the failed wheat in early spring. Would the acreage still qualify as SF acreage in October 2012 (2013 crop year)?**

A6.1: No. Bailing the cut wheat is considered harvesting. Because the wheat was harvested in spring of 2012, the acreage would not have been fallow for the 2012 crop year. Therefore, in October 2012 (2013 crop year), the acreage would not qualify for the SF practice. Please see Crop Insurance Handbook, Section 12 B (1) (c) for more guidance.

To maintain the SF qualification on the acreage for the 2013 crop year, you could have:

1. Terminated the failed wheat by June 1, and controlled all later growth by mechanical or chemical means; or
2. Grazed the failed wheat and terminate it by June 1. Then control all growth after June 1 by mechanical or chemical means.

**Q7: My acreage is currently in a perennial crop under a Conservation Reserve Program (CRP) contract. The CRP contract will soon expire, and I plan to start cropping the acreage again. What do I need to do so the acreage will qualify for the summerfallow practice?**

A7: In cases of a previously existing perennial crop, including those on previous CRP ground, the perennial crop must be terminated by mechanical or chemical means a full crop year before planting of the crop qualifying for the SF practice. This means the land must have been broken out of CRP by fall and lie fallow for a full crop year. Anything broken out in the spring to be planted in the fall would be considered a continuous cropping practice.

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#### 4. 2013 Crop insurance and cover crops in relation to spring cash crops

(Note: The following information from the USDA Risk Management Agency was published November 29, 2012. It is available on the web at: <http://www.rma.usda.gov/help/faq/insuring.html>)

For the 2013 crop year, the Risk Management Agency (RMA) in the Topeka Region filed two Special Provisions statements that will allow the haying or grazing of cover crops without impacting the insurability of planted 2013 spring crops provided certain conditions are met with regard to the destruction of the cover crop. In addition, the Topeka office also extended the period of time in which the cover crops may continue to grow without impacting the insurability of spring planted crops in the relatively rainfall rich eastern half of the region. These new flexibilities are in response to the widespread, severe drought conditions throughout our four-state region that has caused catastrophic damage to crops and forage supplies.

The two Special Provision statements that increase flexibilities with regards to crop insurance and cover crops are:

1.) Modification of the "double crop" statement. Although these statements may vary, depending on local climatic and agronomic conditions, all versions will allow for harvesting of cover crops. Moreover, in areas of relatively high, historic rainfall totals, cover crops are allowed to grow until 50 percent of the field has headed or budded. Below are the two primary statements used in the Topeka region:

a.) Missouri, Eastern Kansas, and Eastern Nebraska:

Insurance shall not attach or be considered to have attached to a planted non-irrigated crop on acreage from which, in the same calendar year:

1. A perennial hay crop was harvested; or
2. A crop (**other than a cover crop**) reached the headed or budded stage prior to termination, regardless of the percentage of plants that reach the headed or budded stage,
3. **A cover crop is terminated after 50% of the cover crop has headed or budded.**

b.) Colorado, Western Kansas, and Western Nebraska:

Insurance shall not attach or be considered to have attached to a planted non-irrigated crop on acreage from which, in the same calendar year: 1) A perennial hay crop was harvested; or 2) A crop, including a cover crop, reached the headed or budded stage prior to termination, regardless of the percentage of plants that reach the headed or budded stage.

2.) The following special provision statement allows for the haying or grazing cover crops without jeopardizing a prevented planting payment, provided the haying and grazing did not contribute to the acreage from being prevented from planting:

*In lieu of Section 17(f)(5)(ii) of the Common Crop Insurance Basic Provisions, haying or grazing a cover crop will not impact eligibility for a prevented planting payment provided such action did not contribute to the acreage being prevented from planting.*

The following are frequently asked questions with regard to cover crops and crop insurance for spring planted crops:



**Q1: What is the purpose of the "double-crop" statement?**

A1: The "double crop" statement is part of the Special Provisions in counties throughout Colorado, Kansas, Missouri, and Nebraska. It applies to most non-irrigated, spring planted crops (e.g. corn, grain sorghum, soybeans). Its purpose is to reduce the risks (e.g. soil moisture depletion, shortened growing season) associated with growing a spring planted crop which is planted following another crop, or cover crop.

**Q2: What is RMA's definition of a cover crop?**

A2: A crop generally recognized by agricultural experts as agronomically sound for the area for erosion control or other purposes related to conservation or soil improvement. If you would like more information on the types of cover crops that are agronomically sound in your area, please consult a local university extension advisor.

**Q3: How does the 2013 double crop statement differ from previous years statements?**

A3: Two changes were made to the double crop statement in 2013 to encourage an increase in forage supplies in our drought ravaged region. First, and in all counties in the Topeka region, the 2013 statement allows for the harvesting of "another crop" and a cover crop. Second, in the Eastern parts of our region (Missouri, and Eastern Kansas, and Eastern Nebraska), a cover crop is allowed to grow until 50 percent of the field has reached the headed or budded stage.

**Q4: Can planting a cover crop adversely affect my crop insurance coverage for my succeeding spring planted crop (e.g. corn, grain sorghum, soybeans)?**

A4: No. Planting a cover crop will not adversely affect the crop insurance coverage of your succeeding spring planted crop provided the cover crop is terminated in accordance with the Special Provision statement.

**Q5: I farm in Missouri. I will follow my cover crop with non-irrigated soybeans, which I want to insure. Agricultural experts have advised me that I should "keep the cover crop on the acreage until the (cash) crop is ready to be planted". Will following this advice impact the insurability of my soybeans?**

A5: For insurance to attach to your soybeans, your cover crop must be terminated with 50 percent or less of the field at the headed or budded stage. If you terminate the cover crop after 50 percent of the field has headed or budded, insurance cannot attach to the soybeans. RMA recommends that you discuss plans related to cover crops with your crop insurance agent.

**Q6: I use a cover crop mix in my field. Some varieties head or bud earlier than others. For crop insurance purposes, at what point must I terminate the cover crop?**

A6: In the Eastern portion of our region (i.e. Missouri, Eastern Kansas, and Eastern Nebraska), the cover crop must be terminated when 50 percent or less of the field has reached the headed and budded stage. Once the field exceeds 50 percent headed or budded, insurance cannot attach to the subsequent non-irrigated crop if the "double crop" statement is in the Special Provisions. In the Western portion of our region (i.e. Colorado, Western Kansas, and Western Nebraska), the cover crop must be terminated prior to reaching the headed or budded stage. If the cover crop reaches the headed or budded stage, regardless of the percentage of plants that reached the headed or budded stage, insurance will not attach to the subsequent non-irrigated crop if the "double crop" statement is in the Special Provisions.

**Q7: Does the cover crop need to be terminated by chemical or mechanical means?**

A7: A cover crop can be terminated by any means - chemical, mechanical, or even winterkill.

**Q8: I plan to plant my corn directly into a living cover crop, and will terminate the cover crop before it reaches the growth stage criteria in the double crop statement. Will this affect the insurability of my corn?**

A8: Yes. According to the Common Crop Insurance Policy Basic Provisions, Section 9 (a) (2), interplanting (e.g. planting corn into another living crop) renders the acreage uninsurable. Therefore, in the above scenario, the corn would not be insurable. To be insurable, you would have to first terminate the cover crop (according to the criteria in the double crop statement), then plant the corn.

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**4. The Oil Spill Prevention, Control, and Countermeasure (SPCC) Program**

**What is SPCC?**

The goal of the SPCC program is to prevent oil spills into waters of the United States and adjoining shorelines. Oil spills can cause injuries to people and damage to the environment. A key element of this program requires farmers and other facilities that exceed the oil SPCC storage requirements to have an oil spill prevention plan, called an **SPCC Plan**. These Plans can help farmers prevent oil spills which can damage water resources needed for farming operations.

**What is considered a farm under the SPCC program?**

Under SPCC, a farm is: “a facility on a tract of land devoted to the production of crops or raising of animals, including fish, which produced and sold, or normally would have produced and sold, \$1,000 or more of agricultural products during a year.”

**Does my farm have to meet requirements of the SPCC program?**

The SPCC program applies to a farm which meets **ALL** 3 following criteria:

1. Stores, transfers, uses, or consumes oil or oil products, such as diesel fuel, gasoline, lube oil, hydraulic oil, adjuvant oil, crop oil, vegetable oil, or animal fat.
2. Stores more than 1,320 US gallons in aboveground containers or more than 42,000 US gallons in completely buried containers; Count only containers of oil that have a storage capacity of 55 US gallons and above. Adjacent or non-adjacent parcels, either leased or owned, may be considered separate facilities for SPCC purposes. Containers on separate parcels (that the farmer identifies as separate facilities based on how they are operated) do not need to be added together in determining whether the 1,320-gallon applicability threshold is met.
3. Could reasonably be expected to discharge oil to waters of the US or adjoining shorelines, such as interstate waters, intrastate lakes, rivers, and streams. The environment and flow properties of oil when combined with a rain event must be considered.

Farms that meet all 3 criteria are **required** to develop an oil storage containment plan by **May 10, 2013**. Additional information on the SPCC program can be obtained from the following website:  
[http://www.epa.gov/emergencies/content/spcc/spcc\\_ag.htm](http://www.epa.gov/emergencies/content/spcc/spcc_ag.htm)

### **Can I develop my own plan?**

An owner or operator of a qualifying Tier I facility can develop a self-certified SPCC Plan.

Qualifications to be a Tier I facility:

- Total above ground capacity between 1,320 and 10,000 gal
- No aboveground single oil storage container with a capacity greater than 5,000 gal
- In the 3 years prior to the date the SPCC Plan is certified, had no single discharge of oil exceeding 1,000 gals or no two discharges each exceeding 42 gal within any 12-month period

### **What information goes into my SPCC plan?**

- A list of oil containers at the farm or parcel with a capacity of 55 gal or more.
- Description of the procedures to prevent a spill
- Description of measures installed to prevent oil from reaching water.
- Description of measures to contain and clean-up and oil spill to water.
- A list of emergency contacts and first responders

Sample plans and plan templates are available at the following website:

<http://www.epa.gov/emergencies/content/spcc/tier1temp.htm>

### **What do I do with my SPCC Plan?**

The plan should be maintained at your facility if you are present at least 4 hours per day or at your nearest office if the facility is not staffed. Your SPCC plan will need to be updated when any changes are made to your storage and/or containment. Additionally the plan must be reviewed every five years.

Kansas State Research and Extension will be hosting a webinar with an EPA representative discussing SPCC for farmers on Tuesday, March 12, 2013 at 10:00am.

Oil Spill Prevention, Control, and Countermeasure (SPCC) Program

Information for Farmers

Webinar

10 a.m. (CST)

Tuesday, March 12, 10 a.m.

Log on to <http://connect.ksre.ksu.edu/sareseminar>

To test your computer for compatibility use the following web site:

[http://connect.ksre.ksu.edu/common/help/en/support/meeting\\_test.htm](http://connect.ksre.ksu.edu/common/help/en/support/meeting_test.htm)

The deadline of **May 10, 2013** to develop and implement your SPCC plan is fast approaching!

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## 5. Comparative Vegetation Condition Report: February 12 – 25

K-State's Ecology and Agriculture Spatial Analysis Laboratory (EASAL) produces weekly Vegetation Condition Report maps. These maps can be a valuable tool for making crop selection and marketing decisions.

Two short videos of Dr. Kevin Price explaining the development of these maps can be viewed on YouTube at:

<http://www.youtube.com/watch?v=CRP3Y5NIggw>

<http://www.youtube.com/watch?v=tUdOK94efxc>

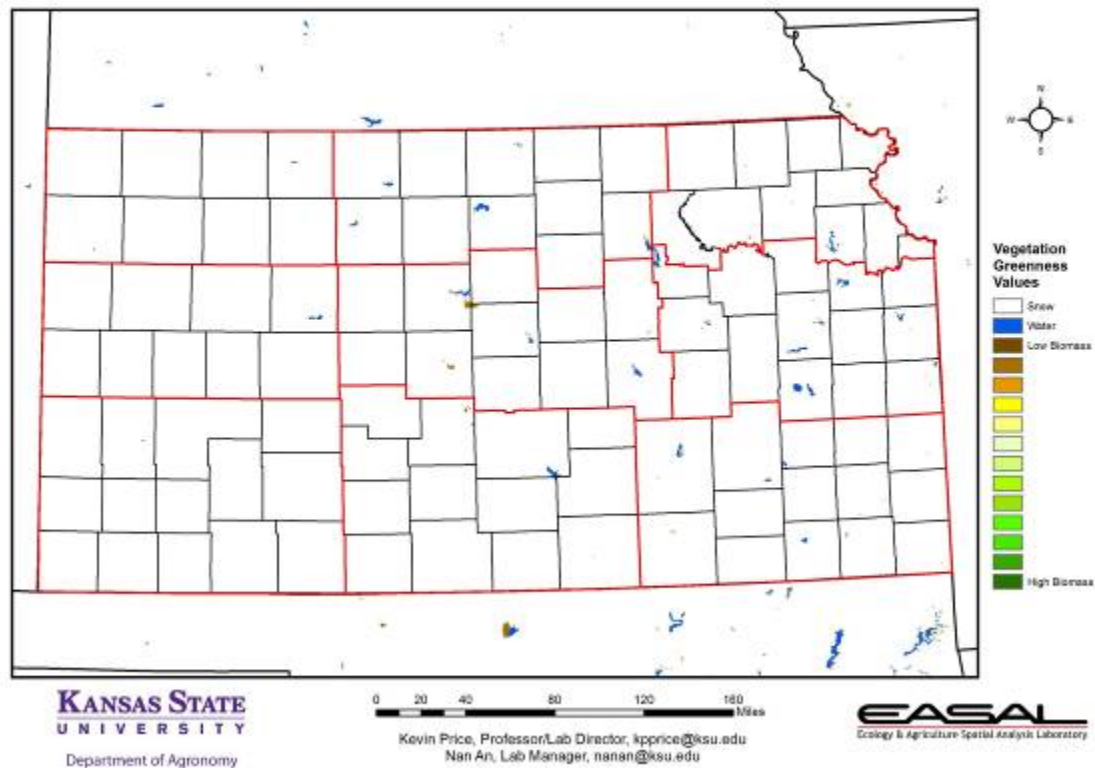
The objective of these reports is to provide users with a means of assessing the relative condition of crops and grassland. The maps can be used to assess current plant growth rates, as well as comparisons to the previous year and relative to the 24-year average. The report is used by individual farmers and ranchers, the commodities market, and political leaders for assessing factors such as production potential and drought impact across their state.

**NOTE TO READERS:** The maps below represent a subset of the maps available from the EASAL group. If you'd like digital copies of the entire map series please contact Kevin Price at [kpprice@ksu.edu](mailto:kpprice@ksu.edu) and we can place you on our email list to receive the entire dataset each week as they are produced. The maps are normally first available on Wednesday of each week, unless there is a delay in the posting of the data by EROS Data Center where we obtain the raw data used to make the maps. These maps are provided for free as a service of the Department of Agronomy and K-State Research and Extension.

The maps in this issue of the newsletter show the current state of photosynthetic activity in Kansas, the Corn Belt, and the continental U.S, with comments from Mary Knapp, state climatologist:

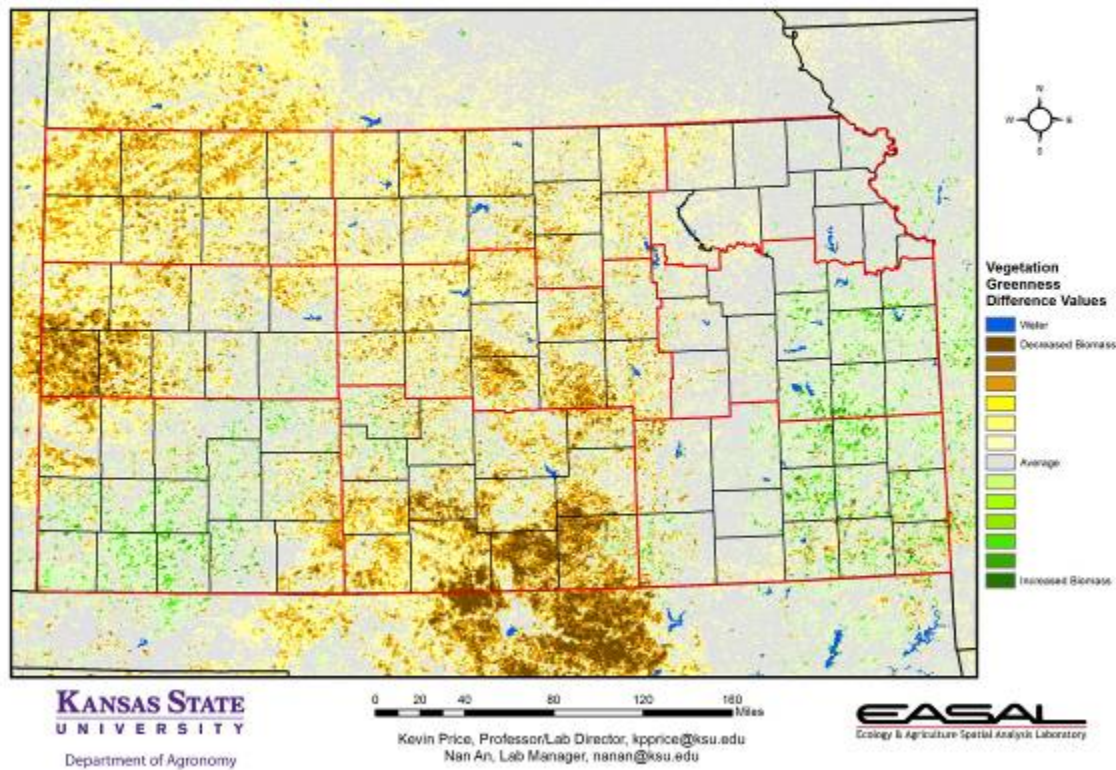
## Kansas Vegetation Condition

Period 08: 02/12/2013 - 02/25/2013



**Map 1. The Vegetation Condition Report for Kansas for February 12 – 25 from K-State’s Ecology and Agriculture Spatial Analysis Laboratory shows that the entire state experienced snow during the period. Two major storms contributed to the total. The highest amounts were in Barber County, where Sun City reported 17 inches on the 22<sup>nd</sup>. Snow water equivalents ranged from a trace in parts of western Kansas to as much as 4 inches in the areas with greatest snow totals.**

# Kansas Vegetation Condition Comparison Mid-February 2013 compared to the Mid-February 2012

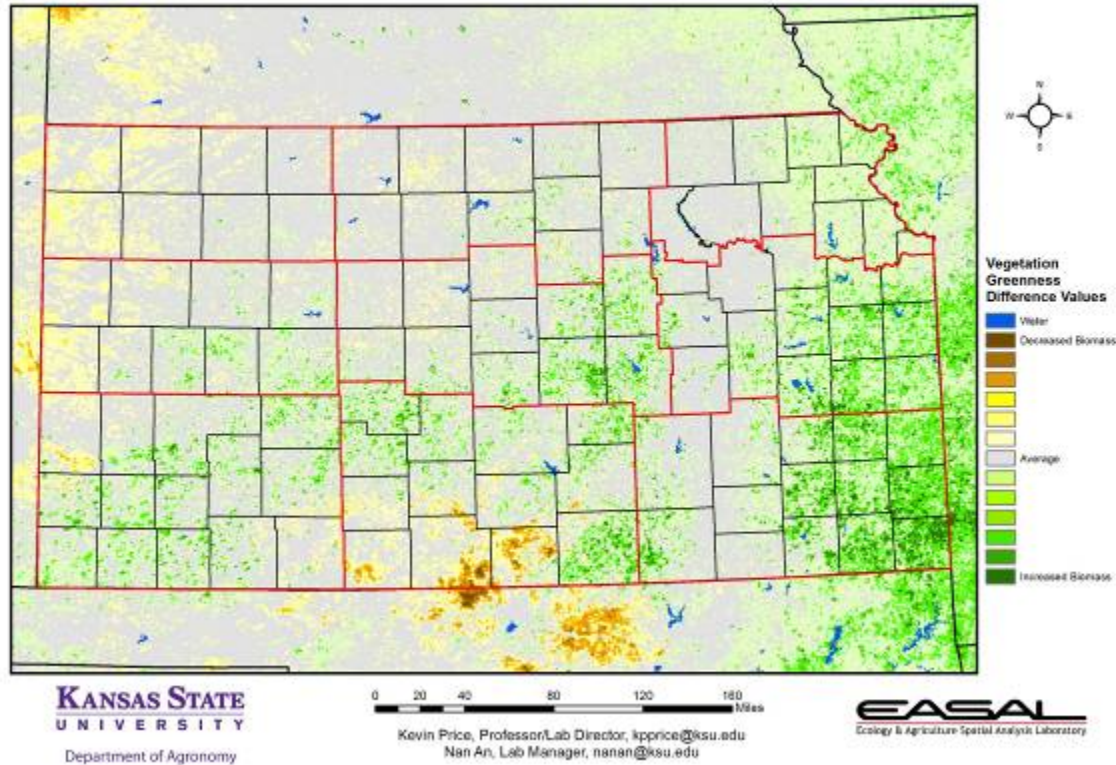


**Map 2. Compared to the previous year at this time for Kansas, the current Vegetation Condition Report for September February 12 – 25 from K-State’s Ecology and Agriculture Spatial Analysis Laboratory shows that only the southwestern and eastern divisions have greater levels of photosynthetic activity. In south central Kansas, plant productivity is much lower than last year. Statewide temperatures have been cooler than last year, reducing photosynthetic activity.**



## Kansas Vegetation Condition Comparison

Mid-February 2013 compared to the 24-Year Average for Mid-February

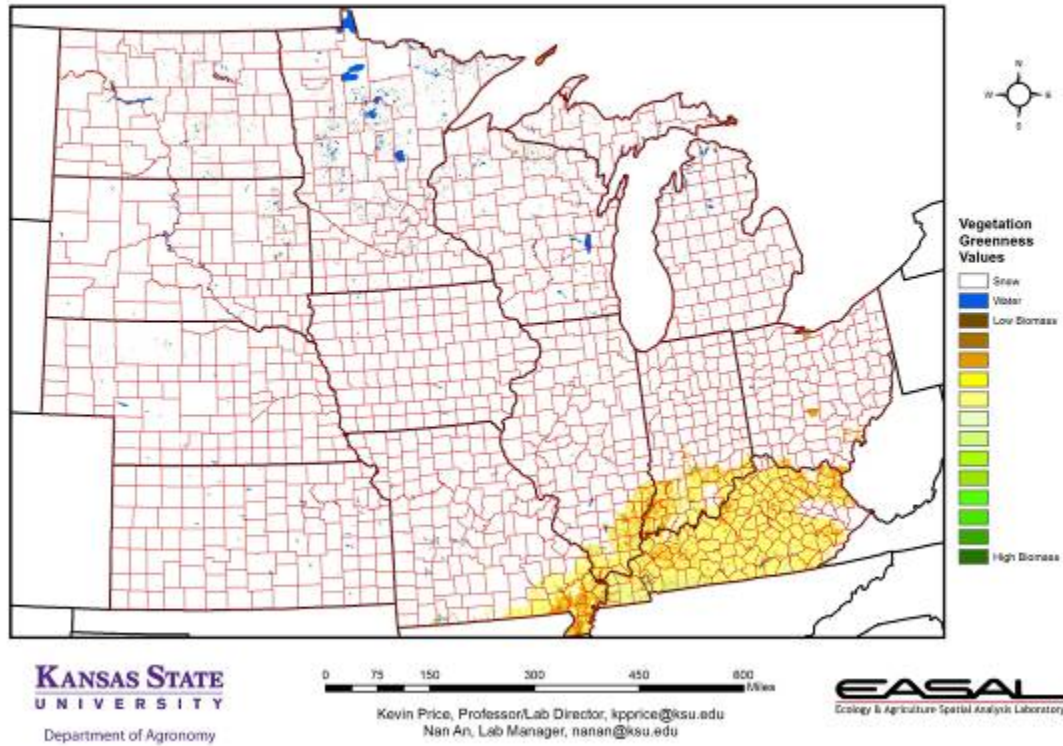


Map 3. Compared to the 24-year average at this time for Kansas, this year's Vegetation Condition Report for February 12 – 25 from K-State's Ecology and Agriculture Spatial Analysis Laboratory shows the greatest departure is in the eastern divisions, particularly in southeast Kansas. Moisture for the period was twice the average, and temperature departures were the smallest.



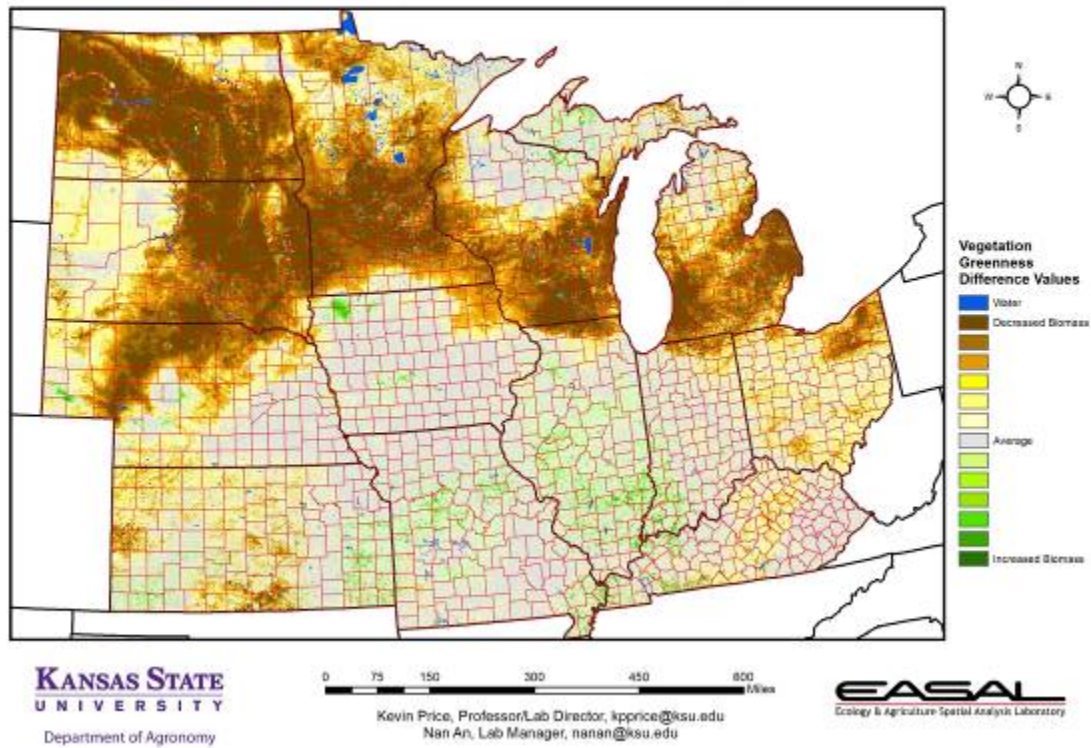
# U.S. Corn Belt Vegetation Condition

Period 08: 02/12/2013 - 02/25/2013



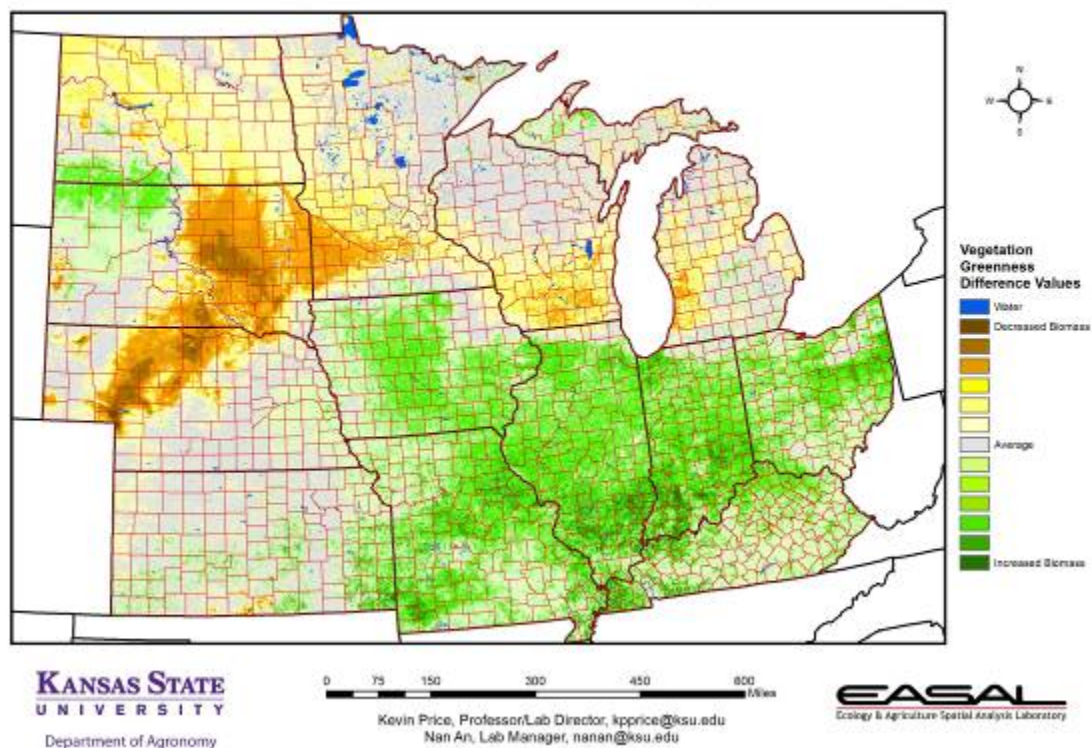
**Map 4. The Vegetation Condition Report for the Corn Belt for February 12 – 25 from K-State’s Ecology and Agriculture Spatial Analysis Laboratory shows that most of the region experienced snowfall. Kentucky received the least amount of snow within the Corn Belt map region.**

**U.S. Corn Belt Vegetation Condition Comparison**  
 Mid-February 2013 Compared to Mid-February 2012



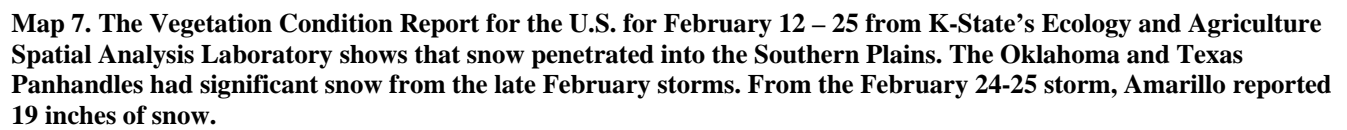
**Map 5. The comparison to last year in the Corn Belt for the period February 12 – 25 from K-State’s Ecology and Agriculture Spatial Analysis Laboratory shows photosynthetic activity is lower in the northern areas of the region. In North Dakota, statewide precipitation is less than half of normal for the year-to-date.**

**U.S. Corn Belt Vegetation Condition Comparison**  
 Mid-February 2013 Compared to the 24-Year Average for Mid-February



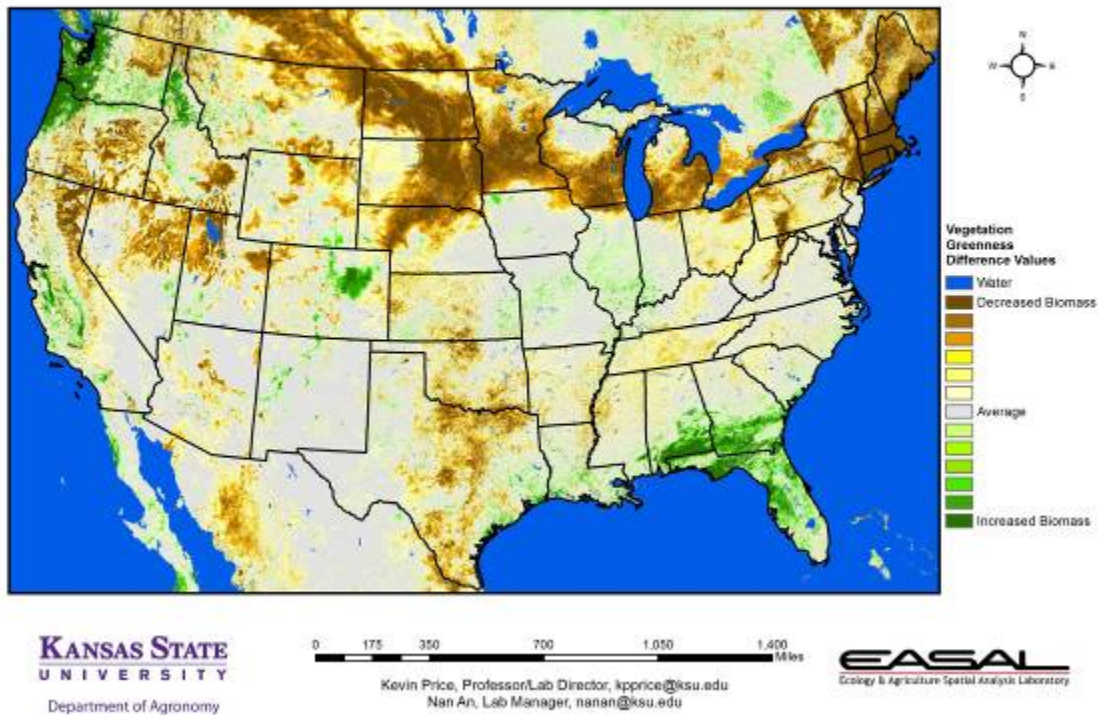
**Map 6.** Compared to the 24-year average at this time for the Corn Belt, this year's Vegetation Condition Report for February 12 – 25 from K-State's Ecology and Agriculture Spatial Analysis Laboratory shows that the eastern portion of the region has much above-average NDVI values. In Illinois, winter wheat conditions at the end of this period were rated 69 percent excellent.

## Period 08: 02/12/2013 - 02/25/2013



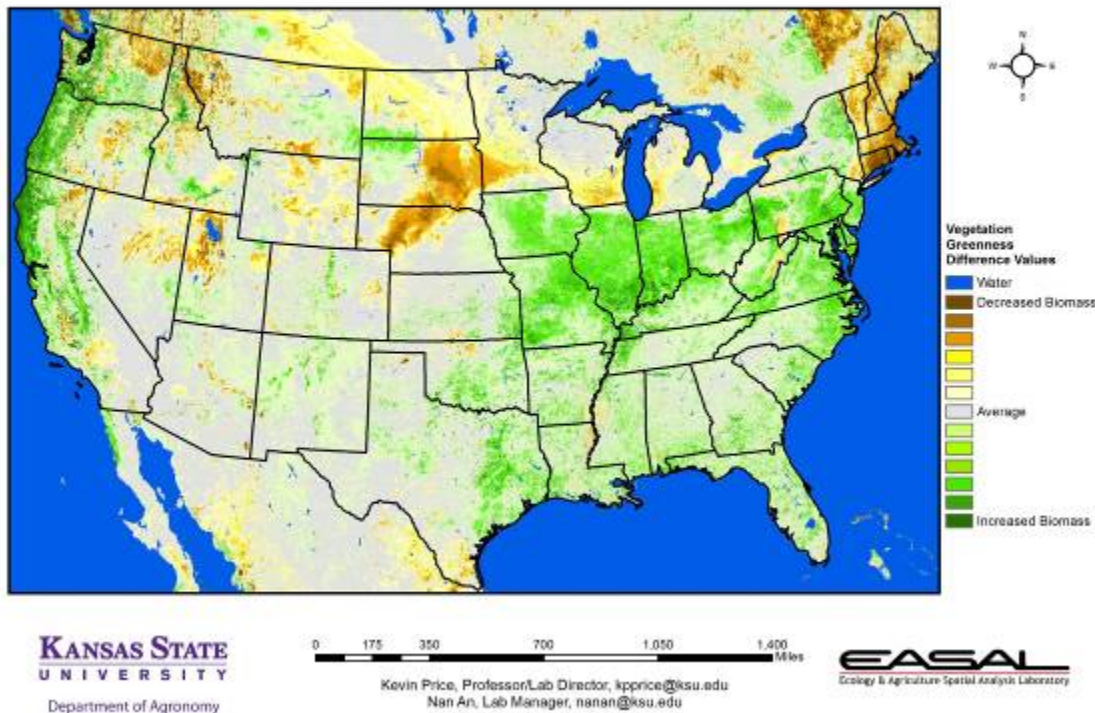


Continental U.S. Vegetation Condition Comparison  
Mid-February 2013 Compared to Mid-February 2012



Map 8. The U.S. comparison to last year at this time for the period February 12 – 25 from K-State’s Ecology and Agriculture Spatial Analysis Laboratory shows that the Pacific Northwest has higher biomass productivity, as does the Florida Panhandle and southern portions of Alabama and Georgia. Photosynthetic activity is lower in the Northern Plains due to cooler temperatures.

**Continental U.S. Vegetation Condition Comparison**  
Mid-February 2013 Compared to 24-year Average for Mid-February



**Map 9. The U.S. comparison to the 24-year average for the period February 12 – 25 from K-State’s Ecology and Agriculture Spatial Analysis Laboratory shows that much of northern New England has below-average photosynthetic activity, as does eastern South Dakota into central Nebraska. In South Dakota and Nebraska, much of the area is still in exceptional drought, while the northern areas of New England experienced temperatures that were 6 to 9 degrees above average. The West Coast and Central Valley of California have above-average biomass productivity, as does the central Corn Belt. These regions have experienced moderate temperatures and above-average precipitation.**

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These e-Updates are a regular weekly item from K-State Extension Agronomy and Steve Watson, Agronomy e-Update Editor. All of the Research and Extension faculty in Agronomy will be involved as sources from time to time. If you have any questions or suggestions for topics you'd like to have us address in this weekly update, contact Steve Watson, 785-532-7105 [swatson@ksu.edu](mailto:swatson@ksu.edu), Jim Shroyer, Crop Production Specialist 785-532-0397 [jshroyer@ksu.edu](mailto:jshroyer@ksu.edu), or Curtis Thompson, Extension Agronomy State Leader and Weed Management Specialist 785-532-3444 [cthompson@ksu.edu](mailto:cthompson@ksu.edu).