Hickman County Extension Office 329 James H Phillips Drive P.O. Box 198 Clinton, KY 42031 Phone: (270) 653-2231



**University of Kentucky** College of Agriculture, Food and Environment *Cooperative Extension Service* 



# Hickman County Agriculture and Natural Resources Newsletter

Issue Includes: Winter Grain Meeting Flyer Management of Soybean Cyst Nematode Tax Management Upcoming Events Monthly Recipe

## **NOVEMBER 2022**

**Cooperative Extension Service** 

Agriculture and Natural Resources Family and Consumer Sciences 4-H Youth Development Community and Economic Development Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.





Disabilities accommodated with prior notification.



**University of Kentucky** College of Agriculture, Food and Environment **Cooperative Extension Service** 

# WINTER GRAIN MEETING

DECEMBER 15 2022

8:00 AM



**AMBERG** FARMS

6299 STATE **ROUTE 1128** HICKMAN KY 42050

**Session Title** Welcome **UT Variety Trials Foliar Products Controlling Resistant Weeds Agronomy Update Disease Control** Farm Business Management

**Speakers Local County Agent Ryan Blair** John Grove **Larry Steckel Chad Lee Kirstein Wise Jennifer Rogers** 

### Lunch is sponsored by *Nutrien* Ag Solutions

Ky & Tn Commercial Applicator Points pending \*\*\*RSVP by calling your local county extension office\*\*\*

Fulton - 270-236-2351 Carlisle - 270-628-5458 Hickman - 270-653-2231

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LEXINGTON, KY 40546

#### Management of Soybean Cyst Nematode Starts with Soil Sampling this Fall

The soybean cyst nematode (SCN) (Figure 1) causes greater annual yield losses in Kentucky than any other pathogen of soybean. Preliminary results from an on-going SCN survey initiated in 2019 show that approximately 80% of Kentucky fields are infested with SCN (Figure 2). Risk of yield loss due to SCN can be estimated by the initial SCN egg count at the beginning of the season, where 0-499 eggs/100 cm3 soil is a low risk of yield loss, 500-1,999 eggs/100 cm3 soil is a moderate risk, 2,000-9,999 eggs/100 cm3 soil is a high risk, and at least 10,000 eggs/100 cm3 soil is a very high risk. According to the ongoing survey (based on 360 samples representing 35 counties), nearly 40% of the fields surveyed have populations that will likely cause yield loss.

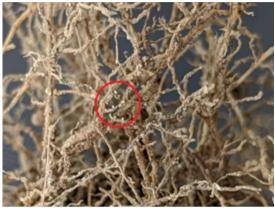
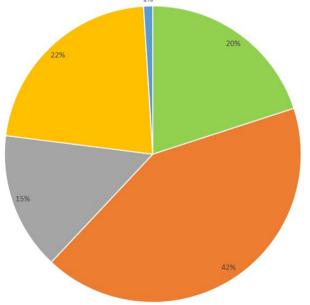


Figure 1. Females of the soybean cyst nematode (white colored lemon-shaped objects attached to roots in a red circle) infecting soybean roots. (Photo: Carl Bradley, UK).

Although above-ground symptoms (stunting and yellowing) caused by SCN can occasionally be observed, affected soybean plants generally appear to be healthy. Unfortunately, "healthy-looking" soybean plants that are infected by SCN can still have up to a 30% yield reduction. Management of SCN has gotten much more complex in the last few years, since SCN populations have adapted to the use of SCN-resistant soybean varieties. The primary source of SCN resistance used by commercial soybean breeding programs came from a soybean germplasm line known as "PI 88788." This source of resistance was highly effective in managing SCN for several years, but prolific use of soybean varieties with the PI 88788 background has selected for SCN populations that are able to overcome this source of resistance. In the 2006-2007 University of Kentucky SCN survey, the PI 88788 source of SCN resistance was not very effective against approximately 60% of the SCN populations in Kentucky, making management of this pathogen much more complex than before.

Figure 2. Preliminary results of an ongoing survey of soybean cyst nematode egg densities from Kentucky soybean fields. Eggs numbers are shown as number of eggs per 100 cm3 soil. These results represent 360 soil samples from 35 counties.



Managing SCN

As complex as it is, management of SCN is still doable, and is important for maintaining and increasing soybean yields. Below are the main steps for managing SCN:

Test your fields to know the number of SCN eggs in your field. The best times to sample for SCN in your fields is in the fall or in the spring (before planting). A Fact Sheet on sampling for SCN is available here. Although the University of Kentucky does not currently have an active SCN Laboratory, samples can be sent to either the University of Illinois Plant Clinic or the University of Missouri SCN Diagnostics Lab. Similar to the past two seasons, the Kentucky Soybean Board is continuing to sponsor free SCN testing for Kentucky farmers. With this program, a limited number of samples for each county can be tested for free. Please check with your local County Extension Office for more information about the limited free SCN testing program.

Rotate resistant varieties. If varieties are available that utilize sources of SCN resistance other than PI 88788 (such as Peking or Hartwig), then rotate the source of resistance every time you plant soybean in a field. Unfortunately, nearly all the soybean varieties adapted for planting in Kentucky utilize only the PI 88788 source of resistance. However, it is still important to rotate to different resistant soybean varieties, even though they are utilizing the same source of resistance. SCN is good at adaptation, so switching soybean varieties will help.

Rotate to non-host crops.Rotating fields to a non-host crop, such as corn or grain sorghum, will help reduce SCN populations in fields.Wheat is another non-host crop that may help lower SCN populations by having it in the rotation. Several years ago, Dr. Don Hershman with the University of Kentucky evaluated the effect of wheat residue on SCN populations. His research found that planting soybeans into fields with standing wheat stubble reduced SCN populations at the end of the growing season. More information about that research can be found here.

Consider using a nematode-protectant seed treatment. Several nematode-protectant seed treatment products are now available on the market. Although the effects of these seed treatments have not always been consistent in field research trials, they are additional tools that can be used along with resistant varieties and crop rotation to help manage this important pathogen.

A multi-state initiative funded by the Soybean Checkoff Program known as the SCN Coalition is helping to promote awareness of the damage caused by SCN and the importance in managing this pathogen. More information about the SCN Coalition is available on their website. Be on the lookout for information from the SCN Coalition about this important pathogen.

References

Hershman, D. E., and Bachi, P. R. 1995. Effect of wheat residue and tillage on Heterodera glycines and yield of doublecrop soybean in Kentucky. Plant Disease 79:631-633. Link

Hershman, D. E., Heinz, R. D., and Kennedy, B. S. 2008. Soybean cyst nematode, Heterodera glycines, populations adapting to resistant soybean cultivars in Kentucky. Plant Disease 92:1775. Link By Carl A. Bradley, Plant Pathology Extension Specialist

\*\*\*Free Soybean Cyst Nematode Testing (paid for by KY Soybean Promotion Board): The Kentucky Soybean Board is continuing to fund free soybean cyst nematode (SCN) testing. Fall and Spring (before planting) are the best times to collect soil samples from fields for SCN testing. To take advantage of the free SCN testing call the office at 270-653-2231.\*\*\*

#### Tax Management is Still Important – Even in a Down Year

#### By: Jennifer Rogers

With farm production being down, compared to recent years, it may come as a surprise to many that tax management is still vitally important. Kentucky producers were blessed in 2021 with record yields and good prices, resulting in high revenues. While some of the 2021 revenue may have been recognized last year, many bushels of crops were held over to sell in early 2022. Most farms are cash-based taxpayers, meaning that any crop sales held over to the following year will be taxed in the year they were received. This means that even this drought year, with reduced production, could still come with a big tax bill. The steps to tax management include knowing where your income currently stands, managing tax brackets, and adjusting your income.

Good, up-to-date records are the key to management. If you don't know what is going on financially, there is no way to know that you are making sound decisions. At this point in the year you should be able to calculate your revenue and expenditures to date. Using this information, you should also be able to make some projections about what additional income and expenses will take place before the end of the year. Being able to compare net income this year to last year or other previous year's is also a good tool. This will provide some insight into how much things are different and give you some inclination as to whether you expect your tax liability to be up or down. When considering expenses, don't forget about the non-cash expense of depreciation. An operation may or may not have depreciation available from previous year's purchases to use in the current year. It will depend on the expense elections and purchase history. An operation may also have capital purchases in the current year that may be available to depreciate.

While almost everyone wants to pay as few dollars in tax as possible, managing tax brackets, to take advantage of an entire lower bracket, may result in less tax paid over time. Tax liability is calculated based on the total taxable income and is calculated on the percentage rate of the tax bracket that income falls into.Everyone gets to take advantage of the lower brackets and only pays that lower rate on the income amounts that fill those brackets. As taxable income increases so does the tax rate for those additional dollars.

Managing tax brackets may result in additional tax dollars paid this year as you fill up a lower bracket, but then save tax dollars in future years because you don't have income flow over to the higher bracket. This year, with lower revenues expected from crop sales may provide opportunities for the opposite. Producers may expect lower taxable income next year, so they may try to manage tax into a lower bracket this year, knowing that they can move some taxable income forward to next year and stay in the same bracket or at the same rate.

Adjusting taxable income sounds like it might be an issue of tax manipulation, however, cash-based taxpayers are allowed a lot of flexibility about when they recognize both income and expenses. Adjusting income can be as easy as delaying sales to the next year or prepaying expenses in the current year that won't be used until the next year. If additional income is needed, a producer can sell more crop in this year, or take out a CCC loan and claim it as income. Accelerating depreciation or foregoing accelerated deprecation in another option. There are lots of ways to adjust income legally. If you have questions about what you can and cannot do, you should consult your tax professional. The flexibility of being able to adjust income is what allows producers to be able to manage tax brackets.

Tax management is one piece of total farm management. The key to almost all farm management issues starts with good records. Without complete, up-to-date, financial records, you can't manage tax brackets or know which way to adjust taxable income. In a down year like this, stay aware and don't get surprised by a sleeping tax liability that you have pushed forward. It may also be a year to "catch-up" or slow the deferral of moving income forward. Review your records and have a discussion with your tax professional before the end of year, while you can still adjust your taxable income.

### UPCOMING EVENTS

Nov 15, 2022	UK 2022 Crop Pest Management Webinar Series Managing Important Soilborne Diseases of Soybean
Nov 22, 2022	<u>UK 2022 Crop Pest Management Webinar Series</u> Implementing Defensive Shifts Against Problematic Kentucky Weeds
Dec 6, 2022	UK 2022 Crop Pest Management Webinar Series Corn Disease Management Questions Asked in 2022
Dec 13, 2022	UK 2022 Crop Pest Management Webinar Series Entomological Studies in Corn & Soybeans Under Difficult Circumstances (Covid, a Tornado & Drought) in 2022
Jan 5, 2023	UK Winter Wheat Meeting
Jan 19, 2023	KY Commodity Conference - Bowling Green
Feb 23, 2023	KATS In-depth Mode of Action
March 9, 2023	KATS Soil Fertility and Assessment
March 9-11, 2023	National Commodity Classic - Orlando FL
May 09, 2023	UK Wheat Field Day
May 18, 2023	KATS Crop Scouting Clinic
June 7-8, 2023	KATS Drone Pilot Certification Prep Course
July 13, 2023	KATS Spray Clinic
Jul 25, 2023	UK Corn, Soybean and Tobacco Field Day

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### **Slow Cooker Venison Enchiladas**



Ingredients: 1 ground venison (may substitute elk or beef) ½ cup chopped green pepper 1 cup chopped onion 1 can (16 ounces) low sodium pinot or kidney beans, drained and rinsed 1 can (15 ounces) low sodium black beans, drained and rinsed 1 can (10 ounces) no-sodium diced tomatoes with green chilies, undrained



1/3 cup water
½ teaspoon cumin
¾ teaspoon chili powder
¼ teaspoon pepper
6 corn tortillas
1 cup colby jack cheese, shredded
Directions:

In a large skillet, cook meat, green pepper, and onion until meat is browned. Add the beans, tomatoes, water, cumin, chili powder, and pepper, and bring to a boil. Reduce heat, cover, and simmer for 15 minutes. In a slow cooker, layer 1/3 of meat mixture, 2 tortillas and 1/3 cup of cheese. Repeat the layers 3 times. Cover and cook on low for 5 to 7 hours.

Source: Adapted from: "Fish & Game Cookbook" Bonnie Scott. 2013.

Servings:6Serving Size:1 enchilada slice

Nutrition Facts per Serving: 370 calories, 8g total fat, 4g saturated fat, 80mg cholesterol, 350mg sodium, 39g total carbohydrate, 10g dietary fiber, 3g total sugars, 31 g protein, 15% DV calcium, 35% DV iron, 15% DV potassium

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Agent for Agriculture and Natural Resources



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RETURN SERVICE REQUESTED