



Carlisle County ANR Newsletter June 2024

Cooperative Extension Service

Carlisle County
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Ag Dates to Remember

Dates to Remember:

Pest Management Field Day-June 27-Princeton-flyer attached

WAVE AG Day Nominations due-July 1-forms are online

UK Corn, Soybean and Tobacco Field Day-July 23- Princeton

Rinse and Return- July 24-with lunch at the extension office flyer attached

Milan No-Till Day- July 25-UT Experiment Station-Milan, TN

Rally Day 4-H-July 30-Extension Office

WAVE Ag Day –August 1-Columbus Belmont State Park



Cooperative Extension Service

Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
Community and Economic Development

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

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University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.
Lexington, KY 40506



Disabilities
accommodated
with prior notification.



WAVE River Counties AG Day-August 1, 2024

It is almost time for the River Counties' WAVE Ag Day mark your calendar.

We will kick off the day with a farmer appreciation breakfast at 7:30 a.m. at Columbus Belmont State Park. The Farmer of the Year, Ag Business of the Year, Special Friend of Agriculture, Young Farmer of the Year along with 4-H and FFA members of the year will be recognized that day.

We plan to host exhibitors, vendors and educational entities that will highlight the rich resources and hidden beauties of all four-river counties, from agriculture to natural resources to commercial opportunities – some of which can be found in this unique region of Kentucky. The exhibitor fair will begin at 8:00 a.m. and conclude at noon.

*Our theme for the day is still “**Let’s Grow With It,**” our nod to the idea that all of our strengths – agricultural heritage, great people, and natural resources – are economic engines that can enrich our communities for years to come. We want to let people know that we are open for business in the River Counties, and that we are moving forward together.*

If your asking why should I attend? The goal and vision is a willingness to work together to achieve new opportunities for all the counties involved.

What a great chance to promote agriculture in Ballard, Carlisle, Fulton, and Hickman County along with all of our other assets.

Come enjoy the morning with us and celebrate agriculture and the Four River Counties!!!

We hope more farmers will please come out and join us. You never know what the day will hold!

Thanks so much Chuck.

I had some calls again this year so here is the article from last year

Poison Hemlock-

Native to Europe, poison hemlock is an invasive weed that was introduced as an ornamental in the United States during the 1800s. It is potentially poisonous if ingested by livestock or humans in both its vegetative growth stages and when dry. The weed is often found along fencerows, roadways and other areas not used for cropland across most of Kentucky and the United States. However, in the past several years, its presence has increased across Kentucky, and it is now found in some hay and pasture fields.

If consumed, poisoning symptoms appear rather quickly in livestock and include nervousness, trembling, muscle weakness, loss of coordination, pupil dilation, coma and eventually death from respiratory failure. Livestock usually do not eat poison hemlock when in its natural growing state because of its unpalatable taste. However, they will eat it if no other forage is available or when they inadvertently consume it through hay.

Ideally, you should control poison hemlock with herbicide products applied during the plant's early vegetative growth stage during the late winter or early spring or with an herbicide treatment in the fall. By this time of the year, it may now be too late for effective control with 2,4-D applied alone and may require other herbicide options for best control. With herbicide applications to grazed pastures, remove livestock from the field until plants have fully died. You can also control poison hemlock by mowing or mechanically removing the plant before it produces new seeds, which occurs soon after flowering. If you find it while cutting hay, either mow around the weed or mow it separate from your stored hay.

The easiest way to identify poison hemlock is by its smooth, purple-spotted stem. Poison hemlock is often confused with the nontoxic weed Queen Anne's Lace (also called Wild Carrot) because both produce clusters of small, white flowers but Queen Anne's Lace will have hairs along its stem and leaf bases. Poison hemlock usually reaches its peak bloom in late May or early June, while Queen Anne's Lace blooms a little later in late June and July.

Source: J.D. Green, extension weed scientist



Stem of Poison Hemlock

Try this fresh from your garden



Cucumber, Corn, and Bean Salsa

2-3 large cucumbers
2 tomatoes
1 yellow bell pepper
1 small red onion
¼ cup chopped fresh cilantro
½ cup black beans

Wash all vegetables. Finely **chop** cucumbers, tomatoes, pepper, and onion. **Combine** in a large mixing bowl with chopped cilantro. **Drain** and rinse beans and add to chopped vegetables. **Add** corn. If using canned corn instead of fresh, **drain** off liquid prior to adding to vegetables.

In a small bowl, mix together ranch

½ cup fresh whole kernel corn, cooked

1 ounce package dry ranch dressing mix

½ cup cider vinegar

2 tablespoons sugar, optional

dressing packet, vinegar, and sugar. **Pour** dressing over vegetables and mix well. **Serve** immediately or refrigerate until chilled.

Yield: Makes 20, ½ cup servings.

Nutrition Analysis: 50 calories, 0 g fat, 130 mg sodium, 7 g carbohydrates, 2 g fiber, 70% Daily Value of vitamin C and 6% Daily Value of vitamin A

Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.





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65 John Roberts Road
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Carlisle County Conservation
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cccd@windstream.net

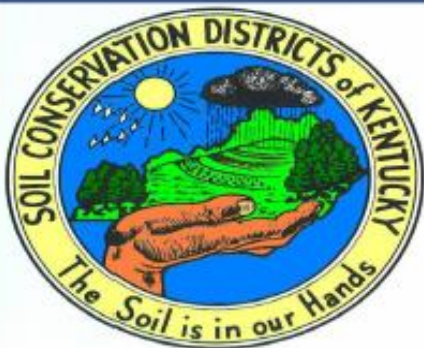
Carlisle County Rinse and Return July 24, 2024

Lunch Sponsored by
Carlisle County Conservation

Triple Rinse Chemical Jugs
And take to the
County Road Department
93 W. Court St.
Bardwell, KY 42023
9:00-11:00



Lunch at 11:00
Carlisle County Extension Office



For more information call the
County Extension Office:
Carlisle -- 270-628-5458
CCD—270-628-3709 or 270-841-0313



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Pest Management Field Day

June 27, 2024

8:30 a.m. to 12:30 p.m.

Speakers and Topics

Travis Legleiter

- Waterhemp and Palmer amaranth management
- Soybean residual herbicides for management of *Amaranthus* species
 - Maximizing metribuzin in soybean
- Postemergence soybean herbicide programs across HR trait platforms
 - Corn herbicide programs

Kiersten Wise

- Corn disease update

Weed Science and Plant Pathology Graduate Student Project Updates

Sign-in begins at 8:00 a.m. CDT at Princeton First Baptist Church Christian Life Center located at 300 W. Main St. Parking is available at the church lot on West Market Street. A caravan will proceed to UKREC for field plot tours.

A **free lunch** will be provided. Pre-registration is recommended by June 20. Pre-register online at <https://tinyurl.com/2j9y33md> or by scanning QR Code; calling the UKREC, (270) 365-7541, EXT. 22569, or email jason.travis@uky.edu.



Continuing Education Units for CCA and KY Pesticide Applicators are pending

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Disability accommodations with prior notification.

The Timing of Water Stress and Soybean Yield

When will it rain? How much will it rain? These questions keep soybean growers constantly checking the Weather Channel during the summer. In Kentucky, the average rainfall during the summer months is less than the average maximum potential water use by the crop. The higher temperatures associated with climate change will increase the potential use, but the mismatch will depend upon what happens to rainfall. Throw in soils that have limited water holding capacity and the amount and distribution of rainfall becomes a critical component of maximum yield production.

Water stress reduces yield, but all stresses are not equal. The effect of stress depends upon when it occurs. Some growth stages are more susceptible than others.

The life cycle of a soybean plant can be divided into three phases. First comes vegetative growth (Phase I) then flowering and seed set (Phase II) and finally seed filling (Phase III). All grain crops fit into this scheme, although there is some variation in details among crops. Soybean, for example, continues Phase I until the end of Phase II. Other crops, corn for example, have a clearer separation between Phases. Phase I in soybean starts at seedling emergence and continues until growth stage R5. Growth stage R1 marks the beginning of Phase II and growth stage R5 its end. Phase III begins at R5 and ends at growth stage R7.

This scheme is especially useful because it relates directly to the determination of the two yield components (seeds per unit area and weight per seed) that combine to make up yield [i.e., $\text{Yield} = (\text{seeds/unit area}) \times (\text{weight/seed})$]. Seed number is determined during Phase II while environmental variation in weight per seed is determined during Phase III.

Most of the environmental effects on yield are expressed by variation in seed number simply because it is determined first. Phase II is the first chance the crop has to adjust its reproductive output to environmental conditions. Weight per seed responds to the environment during phase III.

Thinking about when water stress occurs during these three phases helps us understand its effect on yield.

Vegetative growth (phase I) is probably least sensitive to water stress. Water stress during this phase will reduce growth. This reduction, however, will probably not carry over to affect yield if it starts raining during Phase II, assuming that there is enough leaf area to provide complete ground cover by the beginning of phase II. If the stress is severe enough to prevent complete ground cover, yield will be reduced even if it rains during phase II and III. The size of the vegetative plant is usually not closely associated with yield.

Stress during phase II will probably reduce yield because it will reduce the number of seeds the crop produces. Seed number is related to canopy photosynthesis and the availability of sugars during Phase II, so any reduction in photosynthesis as a result of stress will reduce seed number and proba-

bly yield. Increases in weight per seed can compensate for small reductions in seed number (assuming it starts raining again during Phase III). There is a limit though to how much weight per seed can increase and how much compensation can occur.

Stress during Phase III will reduce weight per seed and yield. Water stress during Phase III accelerates leaf senescence (the destruction of the photosynthetic apparatus in the leaf that occurs normally during seed filling), and shortens the seed-filling period, reducing weight per seed and yield.

Stress during seed filling may not be as obvious as earlier stresses, so it can be a 'hidden' stress. The stressed leaves go through their normal senescence pattern (turn yellow and fall off the plant), they just do it faster. If well-watered plants are not available for comparison, the yield reduction may not be noticed until harvest. The early maturation of soybean plants on hilltops provides a classic example of stress during seed filling. The plants on the hilltops were growing in shallower soils, so they experienced stress and matured before the plants in lower areas that had access to more soil water.

We found in greenhouse experiments that the acceleration of senescence by water stress could not be reversed by adding water to relieve the stress. We stressed soybean plants for three days early in the seed-filling period (Phase III) and then watered them to relieve the stress, but the accelerated senescence continued, and yield was reduced by nearly 20% due entirely to smaller seeds.

'Hidden' stress can be an important source of lower yields, since short periods of water stress can occur in the absence of wide-spread significant drought. The sensitivity of senescence to short-term water stress suggests that high yields may require a complete absence of water stress during seed filling.

When water stress occurs, the big question is – will it reduce yield? It all depends upon how much stress and when it occurs. Soybean can take some stress during vegetative growth without affecting yield. Phases II and III are the critical periods - stress during these periods will probably reduce seed number and/or weight per seed which will result in lower yields. The old Spanish proverb that says, "civilization and anarchy are separated by seven meals" (quoted by J. Cribb in 'The Coming Famine') illustrates perfectly the dangers of a lack of water.

Adapted from Egli, D.B. 2021. Applied Crop Physiology. Understanding the Fundamentals of Grain Crop Production. CABI. 178 pp.

Dr. Dennis Egli

UK Professor Emeritus (859) 218-0753 degli@uly.edu



Kentucky Agricultural Development Fund
County Acct Balances
4/30/2024



COUNTY	FISCAL YEAR 24 BEGIN BALANCE	DISBURSEMENT	REFUNDS	INTEREST	2024 TOBACCO PAYMENTS	2024 State Support to Limited Allocation County:	CASH BALANCE	UNPAID GRANTS	AVAILABLE
Adair	\$ 219,762.41	(224,150)	71,769	2,761	191,622	0	261,764	50,000	\$ 211,764.12
Allen	\$ 191,241.71	(201,896)	16,393	933	137,295	0	143,967	0	\$ 143,966.88
Anderson	\$ 6,983.20	(5,000)	0	248	114,225	0	116,456	0	\$ 116,456.14
Ballard	\$ 149,078.19	(4,614)	44,267	7,400	127,768	0	323,900	5,386	\$ 318,513.67
Barren	\$ 383,768.79	(343,850)	28,098	9,348	346,695	0	424,060	56,250	\$ 367,809.81
Bath	\$ 270,707.29	(283,900)	13,041	10,960	243,600	0	284,408	35,500	\$ 248,908.30
Bell	\$ 30,305.12	0	0	22	218	29,782	60,327	0	\$ 60,326.68
Boone	\$ 106,672.93	(108,077)	45,405	4,039	97,172	0	145,211	47,610	\$ 97,601.44
Bourbon	\$ 438,643.30	(400,000)	24,289	6,784	312,076	0	381,792	59,060	\$ 322,732.16
Boyd	\$ 32,571.71	(40,000)	13,725	190	2,017	27,983	36,487	0	\$ 36,486.88
Boyle	\$ 207,027.06	(201,997)	0	744	136,114	0	141,888	5,500	\$ 136,387.85
Bracken	\$ 345,403.68	(361,634)	39,829	12,205	283,725	0	319,529	0	\$ 319,529.44
Breadthum	\$ 101,148.12	(75,000)	25,931	2,631	62,562	0	117,272	2,500	\$ 114,771.53
Breckinridge	\$ 412,609.63	(300,000)	25,804	14,796	253,615	0	406,824	0	\$ 406,824.13
Bullitt	\$ 49,111.53	(61,400)	11,066	2,079	44,379	0	45,235	0	\$ 45,235.07
Butler	\$ 118,731.69	(107,743)	0	1,214	45,216	0	57,419	10,000	\$ 47,418.98
Caldwell	\$ 83,427.44	(22,000)	0	3,117	55,942	0	120,487	0	\$ 120,486.56
Calloway	\$ 135,946.03	0	0	5,448	29,127	873	171,394	62,642	\$ 108,751.74
Campbell	\$ 183.00	0	427	7	27,937	2,063	30,617	0	\$ 30,617.33
Carlisle	\$ 36,844.67	0	0	1,476	33,365	0	71,686	0	\$ 71,686.14
Carroll	\$ 24,880.91	(16,000)	21,599	1,158	134,869	0	166,508	12,544	\$ 153,963.51
Carter	\$ 137,272.54	(138,518)	0	1,531	126,490	0	126,776	0	\$ 126,775.83
Casey	\$ 337,913.04	(334,000)	15,353	1,797	249,752	0	270,815	1,500	\$ 269,315.06
Christian	\$ 465,000.60	(21,632)	26,081	18,225	180,674	0	668,349	182,036	\$ 486,312.72
Clark	\$ 69,878.77	(102,621)	40,332	2,032	203,464	0	213,085	0	\$ 213,085.44
Clay	\$ 167,709.64	(65,000)	0	4,864	109,285	0	216,859	3,500	\$ 213,359.06
Clinton	\$ 641.05	0	3,465	40	119,659	0	123,805	0	\$ 123,805.05
Crittenden	\$ 30,096.10	(45,557)	15,461	159	2,436	27,564	30,159	0	\$ 30,159.16
Cumberland	\$ 159,241.84	(161,074)	0	2,359	133,112	0	133,639	0	\$ 133,638.88
Daviess	\$ 130,616.50	(143,805)	27,216	4,067	194,612	0	212,707	32,834	\$ 179,872.64
Edmonson	\$ 91,013.46	(85,000)	0	783	81,289	0	88,085	0	\$ 88,085.23
Elliott	\$ 166,243.59	(154,982)	3,452	1,887	147,570	0	164,170	0	\$ 164,170.04
Estell	\$ 164,983.03	(8,000)	0	6,452	69,720	0	233,155	80,000	\$ 153,154.83
Fayette	\$ 356,250.75	(229,500)	12,096	12,917	244,822	0	396,586	12,500	\$ 384,085.80
Fleming	\$ 327,102.01	(289,959)	1,567	10,422	276,852	0	325,984	4,800	\$ 321,184.49
Floyd	\$ 79,279.38	(79,262)	0	32	348	29,652	30,050	0	\$ 30,049.84
Franklin	\$ 156,187.93	(150,056)	0	1,152	143,334	0	150,618	5,000	\$ 145,618.41
Fulton	\$ 60,192.10	(60,000)	0	10	149	29,851	30,202	0	\$ 30,201.92
Gallatin	\$ 144,748.14	(80,000)	50,812	3,950	94,691	0	214,201	0	\$ 214,201.01
Garrard	\$ 499,811.35	(303,675)	24,560	17,941	237,562	0	476,200	3,500	\$ 472,699.60
Grant	\$ 230,220.99	(225,000)	23,053	3,131	190,022	0	221,426	0	\$ 221,426.34
Graves	\$ 55,687.01	(59,579)	8,672	1,130	45,294	0	51,204	5,000	\$ 46,204.39

The Carlisle County Ag Development Board met and decided to wait until next year to do a CAIP program. Above is our county balance as of today. If you have any questions you can contact me at the office.

Information released by

Chuck Flowers
Carlisle County Extension Agent for
Agriculture & Natural Resources



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College of Agriculture,
Food and Environment
Cooperative Extension Service

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