

The Johnston County Grower

Johnston County Center

January 2022

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Private Applicators Recertification/Safety Classes (2 hours V)

The North Carolina Cooperative Extension Service invites all private applicators whose license expires in 2022 to attend one of four Private Applicator Pesticide Recertification/Safety classes. These two-hour classes will be held on the following dates:

Tuesday, January 25, 2022, beginning at 3:30–5:30 pm
Thursday, February 10, 2022, beginning at 3:00–5:00 pm
Thursday, February 24, 2022, beginning at 6:30–8:30 pm
Thursday, September 8, 2022, beginning at 6:30–8:30 pm

The classes will be at the Johnston County Agricultural Center in Smithfield, located at 2736 NC Hwy 210. Applicators are reminded that their license expires at the end of the year, but all recertification credits must be obtained before **September 30 of the year the license expires**. Applicators are asked to bring their Pesticide Credit Report Card with the bar code to scan along with them to class. Please call Tim Britton at 919 989-5380 to check credits.


Tobacco Production Meeting-January 14, 2022 10:00 am

Johnston County Cooperative Extension will host a Tobacco Production meeting on Friday, January 14, 2022, beginning at 10:00 am and ending with Lunch. The meeting will be held at the Johnston County Agricultural Center. Pesticide credits and CCA credits will be offered. Please register [here](#) or call 919-989-5380.

Fumigation Recertification-January 14, 2022 1:30 pm (1 hour fumigation)

Fumigation recertification will be on Friday, January 14, 2022, immediately following the Tobacco meeting. Growers must attend a fumigation recertification training based on the fumigation labels every three years. The NCDA&CS has linked this recertification with your License Renewal Date. If you have the fumigation category on your license, it will appear on your card as V X Z (SF). See the example on the next page.

This is an example of how your card should read: Notice the Z(SF), Soil Fumigation, and the recertification date.

SIGNATURE OF APPLICATOR X		Category
Categories Held: X V Z(SF)		
CATEGORIES AVAILABLE: Z(SF) SOIL FUMIGATION X-PRIVATE SPECIALTY Z(CF) COMMODITY FUMIGATION V-PRIVATE SAFETY		
RECERTIFICATION Recertification credits must be earned by:		Recertification 09/30/2022 Credit Date
		

Annual Fit Testing - January 22 and 29, 2022

Annual fit testing will be on **Saturday, January 22, from 9:30 am to 5:30 pm**, and **Saturday, January 29, from 9:30 am to 5:30 pm** at the Johnston County Agricultural Center. HRMA is charging \$25 per person for the fit testing. An additional mask will be \$5.00. Payment will be collected at the time of the test. There were some issues with seals in the past. Please check seals by doing a seal test before coming in. **Bring your respirator and make sure you are clean-shaven.** Medical clearance will be required for individuals who have not been fit tested. You can obtain medical clearance at www.respexam.com or at your local doctor's office. If you have questions, please call Tim Britton or Bryant Spivey at 919-989-5380.

Small Grain, Corn, and Grain Sorghum Meeting – January 25, 2022, 12:00–3:00 pm (2 hours NODX)

The North Carolina Cooperative Extension Service in Johnston County is inviting all growers to a corn and small grain production meeting on Thursday, January 25, 2022, at noon. The meeting will be held at the Johnston County Agricultural Center. Pesticide credits and CCA credits will be offered. Please register [here](#) or call 919-989-5380.

Regional Industrial Hemp Meeting – January 12, 2022, 10:00 am (1 Hour NODX)

The North Carolina Cooperative Extension Service in Johnston County is inviting all interested growers to a Hemp production meeting on Wednesday, January 12, 2022, at 10:00 am. The meeting will be held as a virtual meeting. Presentations on the continuing research efforts and licensing updates will be included. Join the meeting by clicking [here](#). More information will go out via email as the meeting date approaches.

Regional Cotton Production Meeting - February 3, 2022, 12:00 noon (2 hours NODX)

The North Carolina Cooperative Extension Service in Johnston, Sampson, Cumberland, and Harnett counties invites all growers to attend the cotton production meeting on Thursday, February 3, 2022. The meeting will be held at the Sampson County Extension office in the Livestock facility at 55 Agriculture Place in Clinton at 12:00 noon. Cotton varieties and management, insect management, and weed control will be discussed. Pre-registration is required for the meeting. Please register by calling 910-592-7161

Regional Cotton Production Meeting – February 11, 2022, 9:30 am (2 hours NODX)

The North Carolina Cooperative Extension Service in Johnston, Wilson, Nash, and Edgecombe counties invites all growers to attend the cotton production meeting on Friday, February 11, 2022. The meeting will be held at the Wilson County Ag Center located at 1806 SW Goldsboro Street at 9:30 am. Cotton varieties and management, insect management, and weed control will be discussed. Pre-registration is required for the meeting. Please register by calling 252-237-0111.

Soybean Production Meeting - February 10, 2022, 5:30 pm (2 hours NODX)

The North Carolina Cooperative Extension Service invites all growers to attend the Soybean Production meeting on Thursday, February 10, 2022, at 5:30 pm. The meeting will be held at the Johnston County Agricultural Center. Pesticide credits and CCA credits will be offered. Please register [here](#) or call 919-989-5380

Pesticide Training (Aquatic) - February 17, 2022, 10:00 am (2 hours ANODX)

The North Carolina Cooperative Extension Service invites pesticide applicators to attend a pesticide training focusing on Aquatics on Thursday, February 17, 2022, at 10:00 am. The meeting will be held at the Johnston County Agricultural Center. Please register [here](#) or by calling 919-989-5380

Regional Peanut Production Meeting - February 21, 2022, 12:00 noon (2 hour NODX)

The North Carolina Cooperative Extension Service in Johnston, Wilson, Wayne, Harnett, and Greene counties invites all growers to attend the Regional Peanut Production meeting on Monday, February 21, 2022, at noon. The meeting will be held at the West Farm at 1365 NC 222 East, Fremont, NC 27830. This will be about 2 miles east of Fremont. Peanut varieties, insect, disease management, and weed control will be discussed. A sponsored meal will be served. Pre-registration is required for the meeting. Please by calling 919-731-1521

Interactive Pesticide Training - March 25, 2022, 10:00 am-12:00 pm (2 hours, all except V)

The North Carolina Cooperative Extension Service in Johnston County invites all commercial and private applicators, dealers, consultants, and public ground operators to attend an Interactive Pesticide Training class. This two-hour class will be held at the Johnston County Livestock Arena on Friday, March 25. The arena is located at 520 County Home Road, Smithfield, NC 27577. The class will begin at 10:00 am. Please bring your Pesticide Credit Report Card with the barcode to this class. Please call Tim Britton at 989-5380 for more information about the credits to be offered.

Auxin Stewardship and Paraquat Training

The North Carolina Cooperative Extension Service invites pesticide applicators to attend an Auxin stewardship and Paraquat pesticide training on Thursday, March 3, 2022, at 10:00 am. For those using the new dicamba products, Xtend, Engenia, Fexapan, or Tavium and the new 2, 4-D products, Enlist One or Enlist Duo, stewardship training is required every year. Paraquat training will begin at 11:00 am and is required every three years. The meeting will be held at the Johnston County Agricultural Center. Pre-registration is not required.

2022 Pesticide Exam Schedule - Johnston County

The North Carolina Pesticide exams will be offered on Wednesday, January 12, April 13, July 13, and October 12 at 1:00 pm at the Johnston County Ag Center. Bring a valid ID (Driver's License) and calculator to take the Exam. Please arrive by 12:30 pm. There will be a pesticide School in May. The school will be offered on May 10th and 11th, and an exam on May 11 at 1:00 pm. You need to register for school and Exams online or by calling 515-3113. To register for the Exam only call 919-733-3556

2022 NC Commodity Conference - January 12-14, 2022

You are invited to attend the 32nd Annual NC Commodities Conference of NC Small Grains, Soybeans, Corn & Cotton Producers Associations, an informative and educational conference dedicated to discussing challenges of farming in the 21st Century. Come along and find out the latest trends and technologies, and hear from some of the leading figures in the industry today. There is no cost for attending the conference, but **pre-registration is required**. The meeting will be held at the **Sheraton Imperial Hotel & Convention Center** 4700 Emperor Blvd, Durham, NC.

Southern Farm Show - February 2-4, 2022, NC State Fairgrounds

Over 400 exhibiting companies make the Southern Farm Show, the largest agricultural exposition in the Carolinas and Virginia. A tradition at the NC State Fairgrounds each February, the show hosts key industry events and is known as the region's annual meeting place for farmers and agricultural leaders. Free admission and parking make the show a can't-miss for farmers, as well as allied professionals, including landscapers and excavation contractors.

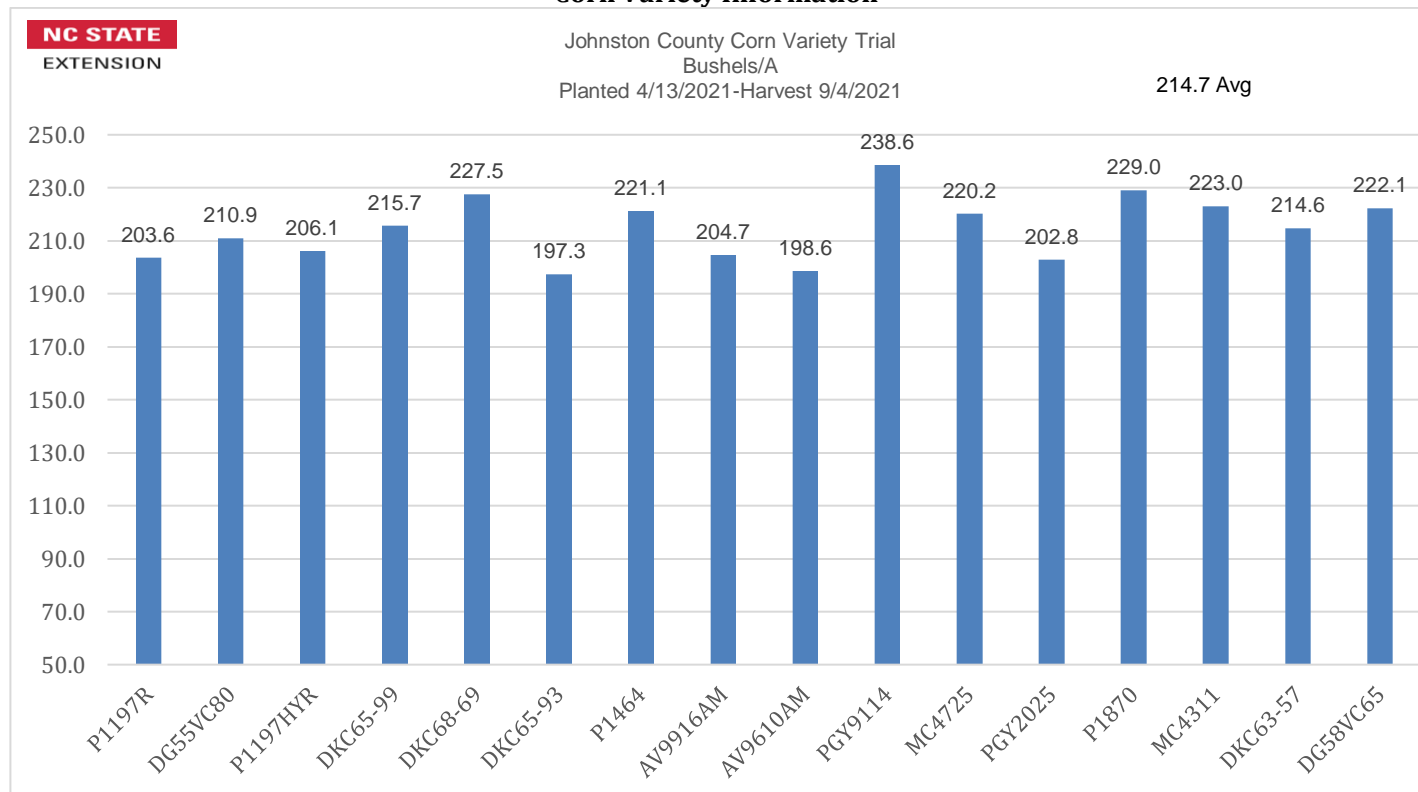
Cotton Variety Information

Cotton variety trials were initiated in several counties to compare yields of ten varieties commonly planted in North Carolina. A range of 1017-1272 pounds per acre of lint cotton was harvested with an average yield of 1174 lbs./A. Please visit the following link to see the cotton variety on-farm testing data by Dr. Guy Collins. https://trials.ces.ncsu.edu/cotton/select_trials/

Variety	Lint Yield Avg. 1174.03	Lint Percent Avg. 40.60
Deltapine 2115 B3XF	1272.92 +8.42%	41.42 +2.02%
Stoneville 5091 B3XF	1263.75 +7.64%	41.19 +1.45%
Deltapine 2038 B3XF	1252.42 +6.68%	43.19 +6.38%

Variety	Lint Yield Avg. 1174.03	Lint Percent Avg. 40.60
Phytogen 443 W3FE	1205.17 +2.65%	40.01 -1.45%
NexGen 3195 B3XF	1191.75 +1.51%	41.03 +1.06%
Phytogen 350 W3FE	1177.92 +0.33%	39.27 -3.28%
Stoneville 4550 GLTP	1152.42 -1.84%	41.15 +1.35%
Dyna-Gro 3535 B3XF	1106.92 -5.72%	39.88 -1.77%
Dyna-Gro 3456 B3XF	1099.08 -6.38%	41.32 +1.77%
NexGen 4936 B3XF	1017.92 -13.30%	37.60 -7.39%

Corn Variety Information



Dryland corn variety trials were initiated in 5 counties across the upper southeast district. The average yield for the Johnston County variety trial was 214.7 bushels/A with a range of 197-238 Bushels/A. The average yield in the region

was 179.6 bushels/A with a range of 176-184 bushels/A. The following chart shows data collected from the 2021 OVT for our area. For all of the 2021 corn OVT information, click [here](#).

Above Average Coastal Plain - All Maturities (2019-2021)

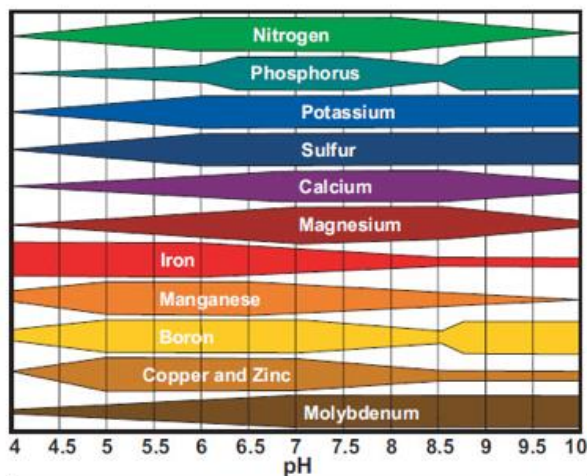
Company/Brand	Hybrid	Trait	Relative Maturity	Yield (bu/a)	Test Weight (lb/bu)	Top Yield Group %	Years in Test
AgriGold	A644-32	TRECEPTA	114	215.3	57.5	63%	2
Local Seed	LC1307	TRECEPTA	113	212.0	56.6	55%	2
LG Seeds	LG5643VT2PRO	VT2P	114	211.4	56.6	58%	2
DeKalb	DKC69-99	TRECEPTA	119	205.1	57.2	56%	2
DeKalb	DKC65-20	VT2P	115	203.9	57.7	25%	2
Seed Consultants	SCS1170AM	AM	117	203.8	57.0	50%	2
DeKalb	DKC59-82	VT2P	109	203.5	56.3	72%	2
Dyna-Gro	D57TC29	TRECEPTA	117	202.8	55.8	50%	2
Pioneer	P1847VYHR	AVBL,YGCB,HX1,LL,RR2	118	200.6	57.0	38%	2
DeKalb	DKC63-57	VT2P	113	200.4	56.9	37%	3
NK Brand	NK1677-3110	Agrisure 3110	116	200.3	55.6	50%	2
Local Seed	LC1407	VT2P	114	198.7	57.5	17%	2
Dyna-Gro	D55VC80	VT2P	115	198.3	56.2	34%	3
NK Brand	NK1748-3110	Agrisure 3110	117	198.2	54.9	19%	2
Seed Consultants	SCS1141AM	AM	114	198.2	56.6	27%	2
Seed Consultants	SCS1188AM	AM	118	198.0	56.7	52%	3
Local Seed	LC1898	TRECEPTA	118	197.3	57.6	25%	2
Dyna-Gro	D57VC17	VT2P	117	197.1	57.8	25%	2
AgriGold	A645-16	VT2P	116	196.9	56.3	19%	2
Local Seed	LC1707	VT2P	117	196.8	57.3	31%	2
Local Seed	LC1506	VT2P	115	196.5	57.8	18%	2
Progeny Ag Products	PGY 2012 VT2P	VT2P	112	196.3	56.4	13%	2
Progeny Ag Products	PGY 2025 VT2P	VT2P	115	196.2	56.1	18%	2
MorCorn	MC 4670	TRECEPTA	116	189.0	57.5	13%	2

Above average yielding hybrids that were tested for 2 or more years across all relative maturities. The yields for these hybrids are greater than or equal to 1 standard deviation from the average. Hybrids are sorted by yield from high to low. Top Yield Group % is the percentage of time the hybrid was in the top yield group across all locations tested in this category. For more details on these hybrids, visit ncovt.medius.re

Soybean Fertility

Soybeans utilize most of their potassium from flowering through pod fill. Having useable K available during this critical time should increase bloom retention, number of pods, and hopefully seed size. We saw some increase in yields with late K application. However, the cost of the fertilizer application needs to be considered in this increase. The biggest issue in this trial was low soil pH. K indexes were sufficient before additional K was added but could have been limited due to soil pH.

How pH affects availability of Nutrients



Optimum soybean yields cannot be achieved without adequate lime. Soybeans are more sensitive to high soil acidity levels than most other field crops. The optimum pH for soybeans on sandy and clay-textured soils ranges from 5.8 to 6.2. Yields on mineral soils decline as soil pH decreases below pH 5.5. For organic soils, optimum soybean yields can be achieved at pH 5.0. Research has shown a 15-bushel yield increase on acid soils with an application of one ton of lime per acre. Another factor that limits soybean yields across North Carolina is low potassium. Potassium deficiency restricts grain development, which reduces the size and weight of beans, this lowering yield potential.

Most extremely sandy-textured soils do not have the capability to hold potassium against leaching and show little or no accumulation from long-term potash application. In such cases, annual applications are the best way to supply enough potassium to sustain good soybean production. Split potash applications during the early growth stage on sandy-textured soils reduce leaching. Soybeans require large amounts of potassium. A crop yielding 50 bushels per acre removes about 100 pounds of potassium. Most of the potassium utilized by soybeans is taken up within 60–100 days after emergence. Therefore, adequate potassium must be provided within the first 100 days of growth. At maturity, soybean seeds contain 60 percent of the total potassium within the plant. Soybean production guidelines developed through research provide management information on a variety of factors that influence yields.

Tillage practices, maturity groups, seeding rates, and planting dates are all important. Good soybean production requires optimizing all of these factors. Soybeans respond well to recommended lime and fertilizer application. Such amendments increase profits for growers who carefully manage their soybean land. The resulting higher yields more than pay for production costs. The first step toward higher soybean yields is to have your soil tested and apply the recommended amount of lime and fertilizer.

Top Yielding Soybean Varieties for our Area (Based on OVT Data)

Group IV		Group V		Group VI		Group VII&VIII	
1 Year Data	2+ year Data	1 Year Data	2+ year Data	1 Year Data	2+ year Data	1 Year Data	2+ year Data
Xtend Flex	Xtend only	Xtend Flex	Xtend only	Xtend Flex	Xtend only	Xtend Flex	Xtend only
LS4606XFS*	USG7480XT*	AG53XF2*	S58XT30*	AG69XF0*	LS6206X*	AG71XF2*	LS7099X*
LS4919XFS*	USG7487XTS**	HS56F00?	LS5797X*	USG7682XF*	S62XT09*	Xtend	LS7305X*
S46XF31S*	USG7478XTS*	AG54XF0*	P53A67X*	AG66XF2*	P 6461 RX*	S72XT80*	S72XT80*
USG 7461XFS*	S48XT90*	AG56XF2*	LS5009XS*	Xtend only		LS7099X*	
Xtend	DG48X45?	LS5909XFS*	USG7529XTS**	P 6461 RX*		LS7305X*	
S48XT90*	S43XS70*	LS5418XFS*	5319NRX*	LS6206X*		77062N?	
USG7478XTS*	P 4821 RX*	Xtend only					
DG46X65?		SG5718XT*					
S48XT40**		S53-F7**					
		MS5461E?					
		P53A67X*					

Tawny*, Gray**, Unknown?

Liberty only		Enlist only		Conventional Group IV's & V's		Conventional Group VI's & VII's	
1 Year Data	2+ year Data	1 Year Data	2+ year Data	1 Year Data	2+ year Data	1 Year Data	2+ year Data
SH6515LL/STS*	SH6020LL/STS?	S45-V9E3**	SH4920E3?	V 4921S*	V 4921S*	Musen?	
SH7418LL*	SH6515LL/STS*	MS5110E?		S16-11644C?	S16-11644C?	NC-Roy**	
		MS5461 E?		S16-7922C?	S167922C?	Woodruff*	
		AP58E31**		V 4520S*		N8002**	N8002*
		SH5321E3?		S16-8898C?		NC Wilder**	
		AP48E31**					
		S49-T6E3S**					
		USG7491ETS**					
		DM 59E01S**					

Tawny*, Gray**, Unknown?

Information was taken from the Variety Selection tool and OVT tables. Information is for our area of North Carolina and may not be useful in other regions. For more information, click [here](#).

Weed Control in Wheat

Ryegrass can be one of the greatest weedy threats to wheat production. Most ryegrass escapes are a result of 1) planting into fields already infested with emerged ryegrass and/or 2) making herbicide applications after the ryegrass is too large to control. However, herbicide-resistant ryegrass has become common, with numerous populations being confirmed with resistance to Osprey, PowerFlex, Axial XL, and Hoelon. Ryegrass will likely achieve resistance to herbicides quicker than any other plant, even Palmer amaranth. Aggressive resistance management programs must be implemented; ignoring this warning may destroy long-term sustainability of grain production in a given field.



Proper management includes planting into a weed-free seedbed, growing a healthy vigorous crop, identifying and treating ryegrass early, tillage including deep turning when feasible, crop rotation, and making wise resistance management decisions.

Scenario and Stage of Wheat Growth	Control Options	Comments
Emerged ryegrass before planting	Tillage or Roundup followed by Gramoxone	Apply Roundup 5 or more days before planting, follow with Gramoxone at planting. Deep turning is also effective when erosion is not a concern.
After planting, when 80% of the wheat seeds have germinated with shoots at least ½" long. Must be activated before ryegrass emerges for residual control.	<u>Zidua 85 WG</u> : 0.75-1.25 oz/A <u>Zidua 4.17 SC</u> : 1.25-2.2 fl oz/A	Label prohibits true PRE. Plant wheat seed at least 0.75" deep; do not apply to broadcast seeded wheat. Zidua at 1.0 oz/A (85 WG) or 1.75 fl oz/A (4.17 SC) is ideal for most soils; higher rates can be used for medium-textured soils or for POST applications.
After planting, when 95% of the wheat is in the spike to 2-leaf stage. Apply before ryegrass is ¼" with activation needed for residual control. <i>Injury should be expected!</i>	<u>Fierce 76 WDG</u> : 1.5 oz/A <u>Fierce 3.04 EZ</u> : label expected in 2022 at 3 fl oz/A	Apply in water to wheat planted at least 1" deep; do not apply to broadcast seedlings. <i>Critical tool for fields infested with populations resistant to POST herbicides. Avoid sands. Do not apply Fierce EZ until labeled.</i>
Wheat between 3-leaf and jointing; ryegrass ≤ 1 tiller. Resistant populations are present in fields across the state.	<u>Axial Bold</u> : 15 oz/A, <u>PowerFlex HL</u> : 2.0 oz/A, or <u>Osprey</u> : 4.75 oz/A	Axial Bold does not require an adjuvant. Powerflex requires crop oil concentrate at 1% v/v. Osprey requires nonionic surfactant 2 qt/A + approved ammonium nitrogen fertilizer at 1-2 qt/A.

The difference in axial bold and Axial XL is the addition of another active ingredient, Fenoxaprop-p-ethyl.



Wild radish is the most problematic broadleaf weed infesting fields. Its seedpods often contaminate harvested grain, thereby reducing profits. The seedpod usually does not shatter but instead dries down and fragments into small sections. These seedpod sections are very close in size and shape to wheat seed and are difficult to remove in cleaning (right). Managing wild radish in wheat is not difficult if timely control decisions are implemented.

Wild radish is the most problematic broadleaf weed infesting fields. Its seedpods often contaminate harvested grain, thereby reducing profits. The seedpod usually does not shatter but instead dries down and fragments into small sections. These seedpod sections are very close in size and shape to wheat seed and are difficult to remove in cleaning (right). Managing wild radish in wheat is not difficult if timely control decisions are implemented.

Scenario and Stage of Wheat Growth	Control Options	Comments
Emerged broadleaf weeds, including radish, before planting.	Tillage or Roundup mixtures	Quelex or Harmony Extra TS plus Roundup applied before planting provides control of most weeds without plant back concerns.
Wheat between 2-tiller and full tiller. Radish < 8" diameter, henbit, chickweed, most other broadleaf weeds.	MCPA (16 oz/A) + Harmony Extra TS OR Quelex 0.75 oz/A	MCPA rate based on 3.8 lb. ae/gal. 2,4-D could replace MCPA <u>at full tiller wheat</u> . Many Harmonytype products are available; see label and Table 5.
Early flush of broadleaf weeds when the initial herbicide application is needed before 2-tiller wheat.	Harmony Extra TS OR Quelex 0.75oz/A (2-leaf - 2 tiller wheat) followed by MCPA 16-20 oz (2-tiller – full tiller wheat)	Sequential applications may be needed to control early emerging intense populations. 2,4-D could replace MCPA <u>at full tiller wheat</u> . Many Harmonytype products are available; see label and Table 5.

Paraquat Training

Paraquat is the chemical name for several trade names of a very common burndown herbicide. Common names include Gramoxone, Paraquat, Parazone, Para-Shot, and Quick-Quat. That list may not be all-inclusive, so be aware that there may be other product names for paraquat as well. Regardless of the product name, you will eventually have to receive training to use a paraquat product.

Only certified applicators can apply, mix, load, deal with open paraquat containers, or clean equipment, etc., that was used for a paraquat application. Any certified applicator who is involved in any part of a paraquat application is required to be trained.

As stated earlier, we are offering the training at the office. However, there is an online class followed by a test. You must get 100% to pass the test. You can retake the test until you pass. I took the training a couple of years ago and found it pretty straightforward, and the test was not particularly tricky. Once you pass the test, training is good for 3 years.

If you desire to go ahead and do this, Google "paraquat training" and select [Paraquat Dichloride Training For Certified Applicators](#).

Click on the *EPA-approved training module can be accessed here*, which will appear as a light blue print just below the first paragraph.

Click on the *Continue* button, click *Create New Account*, and fill out the form. You will then be directed to the training.

How will it be enforced?

This won't add a subclass to your private applicator's license, so legally, you can purchase new label products without any training. You just can't legally use it. However, NCDA inspectors will be able to ascertain purchasers of paraquat products, and they may well be interested in stopping by to see your certificate. Certainly, any drift complaints will cause you to produce your certificate as well.

Tim Britton
Extension Agent - Agriculture

