

AGRICULTURE

Golden Plains Area Newsletter

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October 2019

GOLDEN PLAINS AREA AG NEWSLETTER

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GOLDEN PLAINS AREA
COLORADO STATE UNIVERSITY
EXTENSION

Colorado State University, U.S. Department of Agriculture and Kit Carson, Phillips, Sedgwick, Washington, and Yuma Counties cooperating.

Extension programs are available to all without discrimination.

AG BUSINESS

USDA Rural Development Invites Applications for Rural Business Development Grant Funding Deadline is March 31, 2020

The Colorado USDA-Rural Development's Rural Business Development Grant (RBDG) for Fiscal Year 2020 deadline is just *6 months away*. The application deadline for 2020 will be March 31st, but we are accepting applications now! The most successful applications are the ones that are submitted early enough so eligibility and completeness reviews can be conducted. The Technical Assistance grants in Colorado average about \$25,000 and a Revolving Loan Fund request is \$50,000.

If you have an upcoming project that will assist small, rural businesses, please call us with your project proposal so we can ensure the project and your

organization are eligible for the program. In 2019, the RBDG helped fund 2 new revolving loan funds, an organic egg washing and packing plant viability study, assistance to help a new farm fresh cooperative get up and going and to help small, rural towns better attract small businesses. Attached is some general information for the RBDG program and an overview of all Rural Development's programs. A complete application packet can be emailed to you upon request.

If you have any questions about this or any of Rural Development's programs, please let P.J. Howe, Business Program Specialist, know at 970-329-3151 or p.j.howe@usda.gov.

AGRONOMY

2019 Wheat Variety Decision Tree for Dryland Production

Jerry Johnson and Sally Jones-Diamond

The decision tree on the following page helps Colorado growers make variety selection decisions based on important traits. Under each variety name are the scores, YR for stripe rust and WSMV for wheat streak mosaic virus, with '1' being very resistant and '9' being very susceptible.

HWW

In addition to high yields in high and low yielding conditions, Antero has good test weight, moderate sprouting tolerance and fair straw strength. Monarch, a 2018 release, is a viable non-premium dryland wheat variety choice but is mainly targeted for irrigated conditions with good stripe rust resistance, excellent straw strength, and excellent yields.

Snowmass 2.0, Sunshine, and Breck are in the Ultragrain Premium Program. Snowmass 2.0, expected to replace Snowmass, is better for yield, grain protein deviation, and straw strength. Sunshine has excellent quality, good sprouting tolerance and straw strength but is susceptible to viruses. Breck, is a high-yielding variety with good sprouting tolerance, and straw strength. It also has very high test weight and low polyphenol oxidase (PPO) activity for improved whole grain bread and noodle quality.

HRW

There are more choices for growers planting a two-gene Clearfield® variety. Brawl CL Plus, Byrd CL Plus and SY Legend CL2 (both 2018 releases) are

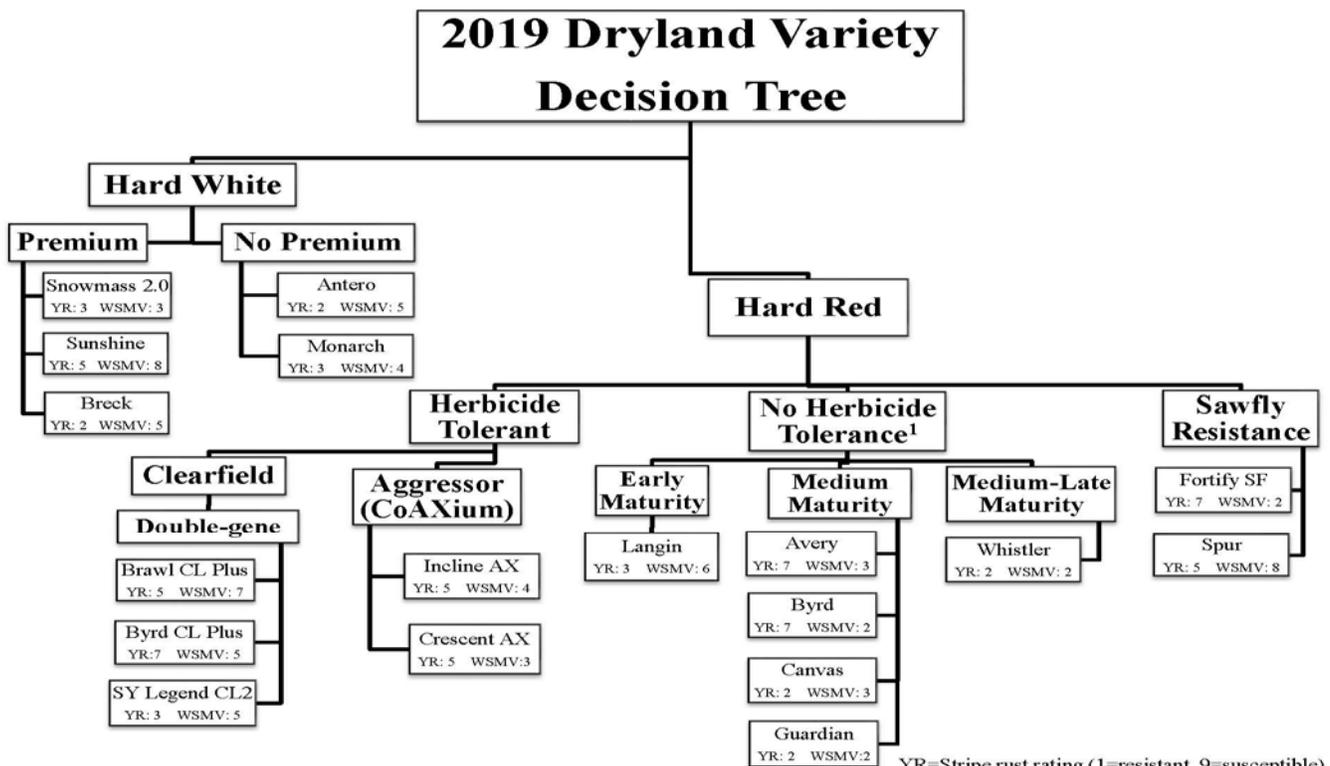
recommended for good control of winter annual grasses. Brawl CL Plus has good test weight, quality, grain protein content, and is early-maturing but has below-average yield. Byrd CL Plus is among the top yielding varieties in 2019 trials and very similar to the familiar Byrd parent. SY Legend CL2, from Agripro Syngenta, provides weed control and has good overall disease tolerance while yielding 92% of 2019 trial yield average.

The new CoAXium® Wheat Production System based on Aggressor® herbicide, a different class of compounds from Beyond, is an option for excellent control of winter annual grasses. Incline AX provides good weed control but has lower test weight and yield. Crescent AX (2018), is much higher yielding than Incline AX yet retains excellent control of winter annual grasses.

Although there are no wheat stem sawfly resistant varieties, there are some varieties that exhibit acceptable yield in the presence of strong sawfly pressure: Fortify SF has above trial average yields in

2018 and 2019. Spur, a 2016 Montana release marketed by Agripro Syngenta, was highest yielding in the Orchard trial this year in the face of very heavy sawfly infestation.

Most producers will plant high-yielding HRW varieties. The recommended early-maturing HRW variety is Langin (2016 release) from CSU, which is a top yielder. For the high-yielding, medium-maturing varieties, there are four recommendations: Avery, Byrd, Canvas, and Guardian. Byrd is well-known and Avery is similar to Byrd with a higher yield potential, larger kernels, slightly improved quality, and above-average test weight. Like Byrd, Avery carries wheat curl mite resistance. Canvas (2018 release) is better yielding than Byrd with a complete package of disease resistance and other traits. Guardian (2019) also has a good disease resistance package and good quality. The recommended high-yielding medium-to-late maturity HRW variety is a newcomer, Whistler, which has excellent yield and good stripe rust and WSMV resistance.



¹No tolerance to Beyond (Clearfield system) or Aggressor (CoAXium system) herbicides

YR=Stripe rust rating (1=resistant, 9=susceptible)
WSMV=Wheat streak mosaic virus rating (1=resistant, 9=susceptible)

2019 Collaborative On-Farm Test (COFT) Variety Performance Results

Jerry Johnson, Sally Jones-Diamond, Kelly Roesch, Wilma Trujillo, Dennis Kaan,
Ron Meyer, John Spring, and Roger Tyler

In the fall of 2018, thirty eastern Colorado wheat producers received seed of the six varieties and planted them in side-by-side strips under the same conditions as the wheat in the rest of the field. The objective of our on-farm testing program is to compare the performance of wheat varieties that are of most interest to Colorado farmers under farmer conditions.

Five varieties were included in all tests and sixteen tests also included Snowmass 2.0. HRW varieties were Byrd, Avery, Langin, and Long Branch. HWW varieties were Breck, and Snowmass 2.0 was included where seed was available. Colorado State University Extension agents oversee all aspects of the program. Twenty-two viable harvest results were obtained.

The COFT program is in its 23rd year and the majority of Colorado's winter wheat acreage is planted to varieties that have been tested in the program. On-farm testing leads to more rapid replacement of older inferior varieties and wider and faster adoption of improved varieties. The varieties tested in COFT this year fit different farmer needs and readers are encouraged to study the tables in the Description of Winter Wheat Varieties in Eastern Colorado and the Dryland Decision Tree for more information. This information is included in the 2019 Colorado Winter Heat Variety Performance Trials can be found on the CSU Crops Testing web site at <https://csucrops.agsci.colostate.edu/>

In the fall of 2019, the COFT program distributed six

varieties to thirty producers in eastern Colorado. The varieties and a description include:

Langin – HRW CSU release (2016), marketed by PlainsGold. Early maturing semi dwarf. Good test weight, stripe rust resistance, and quality. Carries wheat curl mite resistance from Byrd parent.

Canvas – HRW CSU release (2018), marketed by PlainsGold. Medium maturing, medium-short, good straw strength. Good stripe rust and carries wheat curl mite resistance from Byrd parent. Good test weight and milling and baking quality.

Whistler – HRW CSU release (2018), marketed by PlainsGold. Later maturing, tall, marginal straw strength. Good stripe rust resistance and carries wheat curl mite resistance from Byrd parent. Very good milling and baking quality.

Long Branch – HRW Dyna-Gro release (2016). First entered into CSU Variety Trials in 2018. Medium-late maturing, medium-tall with very good straw strength, good winterhardiness, and moderate resistance to stripe rust.

Snowmass 2.0 – HWW CSU release (2018), marketed by PlainsGold in CWRP-Arden Mills Ultragrain Premium Program. Quality profile very similar to Snowmass but low PPO and better grain protein deviation. Good stripe rust and wheat streak mosaic virus resistance. Good straw strength, test weight, and baking quality. Certified seed only.

Crescent AX – HRW CSU release (2018). The new variety in the CoAXium® Wheat Production System based on Aggressor® herbicide, a different class of compounds from Beyond, is an option for excellent control of winter annual grasses. Crescent AX is much higher yielding than Incline AX yet retains excellent control of winter annual grasses.

Saving Wheat Seed

Ron Meyer
CSU Arena Agronomist

Throughout the ages, farmers have planted wheat seed saved from their previous crop. When making seed wheat decisions, they selected the best quality seed from the highest yielding varieties.

With the advent of hybrid crops like corn, farmers discovered that they did not get the advantage of hybrid vigor when they saved their corn seed, the ensuing crop was not uniform, and yields were poor. It was quickly learned they needed to buy new seed each year of these hybrid crops to maximize yields. This annual purchase of hybrid seed commercialized the corn seed business and resulted in enormous investment into research and development for improved corn hybrids. Consequently, technology in corn has benefitted farmers with increased yield potentials. But what about a non-hybrid crop like wheat?

With the passage of the U.S. Plant Variety Protection Act in 1970, congress encouraged private investment into development of new plant varieties. That investment is now paying off in the form of new and improved wheat genetics. However, an important component of this act was the farmer's right to save seed from some varieties. Section 113 of the act states, *"It shall not infringe any right hereunder for a person to save seed produced by the person from seed obtained, or descended from seed obtained, by authority of the owner of the variety for seeding purposes and use such saved seed in the production of a crop for use on the farm ..."*

Simply stated, if a farmer purchases ordinary Certified wheat seed they may keep seed grown from that seed for planting on their farm. However, keep in mind that there are exceptions to this law such as **Certified Seed Only** varieties. When planting Certified Seed Only varieties, new wheat seed must be purchased yearly.

In addition, if a farmer buys non-certified wheat seed

of a PVPA protected variety from someone else, it is likely that not only is the purchase of that seed in violation of the Act, but saving seed of subsequent production is also a violation. Wheat varieties that are Plant Variety protected must be purchased from permitted seed dealers only.

The most recent restrictions to saving seed are those imposed by patented traits and sales contracts. In most cases, farmers are prohibited by patent laws from saving seed of varieties with patented traits like Roundup® resistance in soybean and Clearfield® in wheat. This is usually reinforced through a contract that is signed at the point of purchase. Even if traits are not patented, saving seed may be prohibited as part of the sales contract. **Certified Seed Only Varieties must be purchased every season. Current Certified Seed only varieties are: Brawl CI plus, Breck, Byrd CI plus, Crescent AX, Incline AX, Monarch, Oakley CI, Snowmass, Snowmass 2.0, Sunshine, Sy Legend CL2, Sy Sunrise, Thunder CI, WB4269, WB4418, WB4595, WB4699, WB4721, and WB4792.** Other varieties may be added to this list as they become released. Varieties not on this Certified Seed Only list can be replanted every season without purchasing new seed.

The consequences of planting illegal seed can be substantial. The owner of the variety could go as far as filing a lawsuit asking for the destruction of the crop. There could also be monetary awards and attorney fees. If state or federal officials get involved, fines could be levied per occurrence.

Ignorance of the law is no excuse. As a best management practice, farmers should know what variety they are planting and follow the protocol for that variety. If they did purchase Certified seed, they should read the label and sales contracts to see if there are any restrictions on saving seed. The label and sales contract will state planting limitations. SOURCE: Daryl Strouts, President, Kansas Wheat Alliance

CSU Wheat Variety Testing

Colorado State University (CSU) planted one of the wheat variety test plots at a site located one-half mile north of Burlington along Hwy 385. The site is located on the Michael and Barry Hinkhouse farm. Pictured on the specialized planter is CSU wheat breeder, Scott Hailey. This trial is testing 1,150 wheat varieties. Funding for this research is provided by Colorado State University and Colorado Wheat Administrative Committee.



LIVESTOCK

Corn Stalk Grazing

Travis Taylor
CSU Livestock Agent

Historically, the Golden Plains Area counties impact Colorado's beef industry by providing corn stalk residue as a fall and winter feed source for dry pregnant cows. This opportunity has provided corn growers a second source of income from their crop, while providing cow/calf producers a less expensive forage and the opportunity to rest native winter range. Despite improved harvesting technology and equipment, grazing will reduce field volunteer corn stands that result as kernels pass through a combine, or ear lost to environmental weather conditions. With the opportunities that grazing corn residue brings, other key items should be considered before making any agreements.

Stocking fields correctly can have a dramatic economic effect for producers as leases are generally calculated on a per head basis. Research from the University of Nebraska-Lincoln (UNL) has

concluded that there will be about 16 pounds of leaf and husk per bushel of corn yield left as residue. Therefore, in a field that yields 160 bushels/acre there would be 2560 pounds of quality residue. In a "take

half, leave half" grazing practice, this equates to 1280 pounds, or enough residue per acre to feed a 1200 pound dry pregnant cow 48 days. The UNL Beef Team developed a simple excel spreadsheet to help producers determine field grazing capacity based on corn yield. Called the "Corn Stalk Grazing Calculator", it is available free online at <https://beef.unl.edu/learning/cornstalkgrazingcalc.shtm>. Still, unforeseen weather events such as wind, rain, and snow can have drastic effects on forage available. For example leaf material is light and can be moved around by winds, and husks are easily tromped into muddy fields. Cattle can graze through as much as 4 to 6 inches of snow, but should that snow melt and turn to ice, cattle will be unable to uncover residue. It is prudent to have an emergency plan or reserve feed supply in case severe weather shortens the grazing period.

A bred 1200 pound cow needs to be gaining one pound per day during her last trimester. She should consume two percent of her body weight in dry matter. Corn residue averages around 85 percent dry matter, so the example cow eats approximately 26.5

pounds of residue daily. This is enough feed to meet her energy requirement, as average corn stalk residue provides between 52 and 55 percent Total Digestible Nutrients (TDN). However, cattle selectively graze fields in an order searching out the excess grain, leaves, husks, cobs and finally stalks that make up corn residue. This means that although available energy starts as high as 70 percent TDN, it will decrease to less than 45 percent as cows are reduced to eating cobs and stalks. This problem is compounded as cows graze later into the winter because as residue energy levels fall, the cow's energy demands increase due to fetal development. During the same time as residue nutritional value drops and the cow needs increase, fetal growth is also compressing and limiting rumen space so cows consume less of a diminished quality forage. If possible, cross fencing fields or strip grazing may allow for the best utilization of forage and give managers the ability to provide more consistent energy levels, thus maintaining cow body condition score.

Protein supplementation is need for pregnant cows grazing corn residue, especially during their last trimester. Corn fields will not provide enough protein to meet their daily 1.75 pounds Crude Protein (CP) requirement. Average corn residue is only 5 to 5.5 percent CP, leaving cows 0.3 to 0.5 pounds short of their daily needs. This is even more crucial as the excess corn and leaf material are gleaned from the field. Secondly, as excess corn is removed, residue grazing will not meet the phosphorous requirements of a late gestation cow developing a fetus. While residue should meet calcium requirement, phosphorus

availability is below required levels. Phosphorous supplementation should be at levels that provide the desired 2:1 calcium to phosphorus ratio needed for fetal development. Free choice salt should be provided and can be combined in loose form with sodium bicarbonate to help buffer rumen acid levels as cows "hunt out" grain during initial grazing. Before turning out cattle, it is wise to check fields for any "dumped" corn piles, as piles would be easy opportunities for cows to overload on grain. Finally, ensuring cattle have access to adequate water may be the most important factor to grazing stock fields. As always, restricted water intake equals reduced feed intake and decreased nutrient absorption particularly with a dry forage like corn residue. Research from the National Research Council suggest that it takes 8 to 12 gallon per day for a 1200 pound dry cow during the winter. That same cow may only intake 8 gallons on a 40 degree day, but may need 12 gallons if it is 70 degrees. It would be a safe assumption that water availability at one gallon per 100 pounds of body weight should be provided during winter grazing for dry cows. With this in mind, a 10 foot diameter 2 foot high standard round tank will hold approximately 1170 gallons and would water up to 100 head even on the hotter winter days in the Golden Plains Area.

Corn stalk residue grazing can be economically beneficial when it works into a producer's budget. Information on grazing lease rates, help with leases or other beef decision tools including determining your cow carrying costs can be found at the CSU Agriculture Business Management team website <http://www.wr.colostate.edu/ABM/resources.shtml>.

HORTICULTURE

Become A Master Gardener

By Linda Langelo Golden Plains Area Extension

The Colorado Master GardenerSM program in the Golden Plains Area is accepting applications now. In 2020 the program will run over a two-year period. The training will be provided in the first year with payment up-front and half of the required volunteer hours due by October 31, 2021. In the second year, the rest of the volunteer hours are due with a \$25 fee for reenrollment.

Classes are available on-line with dates arranged for a group lab for the classes taken on-line. There are up to five classes on-line and five classes where the applicants meet for distance education at designated locations in the Golden Plains Area. Our class schedule starts in February and runs through to mid-April. The last class in April is a local class which covers orientation concerning the code of conduct and CMG requirements.

Those accepted into the program will receive training on plant care and have the opportunity to work with other gardeners from the Golden Plains Area who volunteer in the community. The Colorado Master Gardener program is ideal for gardeners who wish to increase their knowledge of horticulture and help others learn the joy of successful gardening.

In addition to receiving training from Colorado State University professors, specialists and horticulture agents, master gardeners learn on the job as they perform 25 hours of volunteer work during the first growing season and 25 hours in the second season and then 24 every year after to keep the master gardener status. Volunteers help Extension in the community by the following types of projects:

- answering questions on garden care
- provide education through teaching classes
- writing news articles

- working with special audiences
- maintaining demonstration sites
- helping with the community garden
- helping with gardening projects for 4-H, FFA and other organizations

In the Golden Plains Area our Master Gardeners have helped do all of the above listed projects as well as keep the Plant Select®, xeric and native plant gardens, provided horticulture projects for those elderly and disabled, created flower container gardens, raised funds, and other various projects. Statewide, the value placed on the time donated by the 1,311 plus master gardeners in 36 county-based programs generate more than \$1.3 million.

With the Colorado Master Gardener Program there are two educational options listed as follows:

- **Colorado Master Gardener Certificate** – those who volunteer will be permitted to do a minimum of 25 hours the first year after all the class work and 25 hours in the second year and pay \$25 for a reenrollment fee.
- **Colorado Garden Certificate Student** – involves no volunteer time. Please read below.

The Colorado Master Gardener program also can be a stepping stone toward a career in horticulture. You can enroll in this program without having to pay back any volunteer time. You would earn a title of **Colorado Garden Certificate Student**. This program is recognized by the green industry as a great vocational education course. The Colorado Master Gardener program is open to all including persons working within the green industry as well outside of the professional field. Many people considering a career in the green industry start with

this master gardener training as an all-around introduction to advanced plant care. If gaining knowledge and helping others through horticulture is of interest to you, the Colorado Master Gardener program is an ideal volunteer choice. Please contact Linda Langelo at Colorado State University Extension Office in Julesburg at **970-474-3479** between **8am** and **4:30pm** for further details such as the cost. I look forward to hearing from you.

Colorado State University Extension in the Golden Plains Area provides unbiased, research-based information about 4-H youth development, family and consumer issues, gardening, horticulture and natural resources. As part of a nationwide system, Extension brings the research and resources of the university to the community. The Sedgwick County Extension is located at 315 Cedar Street, Julesburg, CO. 80737.

Fungal Issues of Junipers

By CSU Horticulture Agent, Linda Langelo

When spring rains just won't relent and turn into early summer rains then fungal problems and rusts become issues. Finally it seems that we can catch a break from this continuous moisture and humidity, but the fungal issue has already started. But this season, so far, junipers seem to be the most prevalent of plants affected with these types of juniper twig blight mentioned below. The best thing to do to help mitigate your junipers from getting fungal issues is to make sure that they are placed with good air circulation. If they are planted to close in a wind break, wherever the moisture cannot dry out quickly, you may find signs of juniper twig blight.

What signs will you see? The tips of your juniper will start turning brown. This starts on new growth and works back on the branch. Typically wet and cool springs are ideal for *Phomopsis juniperovora* or Phomopsis blight. Sometimes, infections can initiate in the fall, if the fall is wet and cool. Once a branch tip is infected it starts turning pale green and then yellow and by early summer brown. The progression of this disease is dependent upon weather conditions. Once the spores or inoculant is present, then it can keep spreading. If conditions remain cool, wet and very humid without a break, this can spread faster.

The second fungal issue occurs when there is warm summer weather. This is called *Kabatina juniper* or

Kabatina blight. This affects one year old or older wood and still kills young shoots in the summer. The affected foliage in the winter takes on a purplish colored foliage which still can remain green through the end of the season. Late winter you can start to see browning occurring.

With either fungal issue, spraying a fungicide is helpful. Removing affected branches and twigs gets the inoculant removed. Unfortunately, there are only a handful of resistant cultivars that are resistant to both phomopsis and kabatina twig blight. This means that they have a reduced chance of getting these blights. It does not mean they won't or cannot get them.

Here are the resistant cultivars according to University of Maryland Extension(UME):

Juniperus chinensis 'Phitzeriana aurea'
Juniperus chinensis var. *Sargentii* 'Glauca'

Also according to UME, the species which are susceptible are eastern, red and white cedar varieties as well as Chinese, common, creeping, needle, Rocky Mountain, savin, shore and Utah junipers. There are a few that can be affected to a lesser degree which are American and Oriental arborvitae, hinoki cypress, and English yew.

Akron High School Volunteers

By Linda Langelo, CSU Horticulture Agent

The high school offered us an opportunity to have student volunteer help. Eight students came to pull weeds and do some fall clean-up in the Akron Community Garden. The Golden Plains Area, Washington County Extension wishes to extend our sincere appreciation for your hard work and time spent on Wednesday morning, September 11, 2019.

The weather was overcast and there was some light rain, but it passed in time for the students to come to the garden.



From right to left in the photo: Colton Collins, Shay Benish, Quincy Basler, Ian Becker, Gavin Brown, Sierra Brown, Ian Dorrenbacher, & Anthony Calderon

UPCOMING PROGRAMS



Colorado Conservation Tillage Association
SERVING THE CONSERVATION AND NO-TILL FARMERS OF THE HIGH PLAINS

32nd Annual High Plains No-Till Conference

Community & Education Center - Burlington, CO

Feb. 4-5, 2020

Join us in Burlington, CO for two days packed with educational sessions about soil health, no-till, regenerative grazing, marketing, ag technology, business management, and more! Registration also includes lunches, snacks, an ag specific trade show, and access to our annual Beer & Bull Social. Don't miss out on this great networking opportunity!

For more information about the conference, go to
<http://www.highplainsnotill.com/conference/registration.html>

2019 Golden Plains Area Agricultural Handbook Orders Being Taken Now

The 2019 edition of the Golden Plains Area Agricultural Handbook is currently in production and orders are being taken now for your copy. This publication is a permanent and often used item in many farm, ranch and agribusiness offices in Northeastern Colorado. This resource book contains the latest university research for high plains agriculture in Colorado. Most of the research results presented in the handbook are conducted on local farms and ranches in the area.

The handbook will be formatted in two parts this year. Part one will contain much of the crop production, water management, crop pathology, insect control and weed management information. Part two will contain information on, livestock cost of production, and crop cost of production. In total subscribers will find approximately 150 pages of current research information required to make informed decisions for agricultural operations.

Pricing for the handbook will remain the same as previous years with tiered pricing for multiple subscriptions and the availability of a printed copy or CD version.

The CD version has the added benefit of spreadsheet templates and other resources useful in the decision-making process. The deadline for receiving a break on your subscription price is January 5, 2018. Order forms are available at Golden Plains Area Extension offices or from the web site at

www.goldenplains.extension.colostate.edu.

Purchase and payment can be made online or printed and sent to the Washington Count Extension Office at 181 Birch, Akron, CO 80720. Don't miss out, hurry and get your order in today.

Another option to obtain your copy of the Agricultural Handbook is to download a printable version from the GPA web site at <http://goldenplains.extension.colostate.edu>. In the right-hand column of the home page, click on Agricultural Handbook under GPA Resources. This will take you to the page where you can download your copy or order a print or cd format.

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2019 Golden Plains Area Agricultural Handbook



This publication is a permanent and often used item in many farm, ranch and agribusiness offices in Northeastern Colorado. This resource book contains the latest university research for High Plains Agriculture of the region. Most of the research work is done on local farms and ranches in the area.

The handbook is designed with *approximately 150 pages* of information you need to make current decisions for:

| | |
|---|---|
| <i>Crop Production</i> | <i>Horticulture</i> |
| <ul style="list-style-type: none"> Variety Trials of Bt and other Corn Hybrids, Dryland Corn Hybrids, Wheat, Irrigated Soybeans, Sunflower Oil and Confection Hybrids, Pinto Bean, Forage Pea and Forages. | <ul style="list-style-type: none"> Plant Select Program High and Dry Demonstration Native Plant Demonstration |
| <i>Crop Insect Control</i> | <i>Livestock Cost of Production</i> |
| <ul style="list-style-type: none"> Control of Western Corn Rootworm, Wireworm in Corn, Western Bean Cutworm, European Corn Borer, Banks Grass Mite in Corn, Sunflower Stem Weevil, Sunflower Head Moth, Army Cutworm and Russian Wheat Aphid | <ul style="list-style-type: none"> Cow/Calf, Yearling and Backgrounding Dairy Sheep Swine |
| <i>Crop Pathology and Weed Management</i> | <i>Crop Cost of Production</i> |
| <ul style="list-style-type: none"> Evaluation of fungicides and bactericides in dry beans Weed management in sunflower Weed management in dry beans | <ul style="list-style-type: none"> Irrigated corn, wheat, pinto beans, potatoes, alfalfa, sugar beets, sunflowers Dryland corn, wheat, sunflowers, millet |

Additional information on an annual basis may include research results from current projects important to producers in the Golden Plains Area and all of northeast Colorado.

The cost for the Golden Plains Area Agricultural Handbook is as follows:

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A downloadable versions of the handbook will be available at <http://goldenplains.extension.colostate.edu> as the books are published.

ORDER FORM

2019 Golden Plains Area Agricultural Handbook



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181 Birch Avenue
Akron, Colorado 80720

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