

Morgan Conservation District

Est. 1955

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Spring 2019 Quarterly Newsletter



Thank you to everyone who attended our Annual Meeting! We were very happy to see so many new faces. Our meeting was held at Country Steak Out in Fort Morgan, CO on February 7th, 2019. Our guest speaker, Kara Harders, from CSU Extension Office of Small Acreage Management (SAM) spoke on range and pasture management for landowners. She spoke of a possible solution for landowners who have many animals but little land called "Paddock Paradise". Landowners can install a fenced pathway around their pasture with various feeding stations to encourage animals to move around the pasture, and then they can graze, when needed, within the pasture. If you are interested in implementing a "paddock paradise", contact us at 970-427-3362 or SAM at <https://sam.extension.colostate.edu/topics/resources/contact/>



Upcoming Events

April 4th & 5th: Tree Delivery Day

Pick up your seedling trees for conservation at our office at 200 West Railroad Avenue between the hours of 7 a.m. and 4 p.m. each day.

April 19th: Earth Day Cleanup with 4H at Riverside Park

May 23rd: Riparian Trailer Tourings

June 1st: Drought Management Workshop

Join us for a half day workshop on how to holistically manage drought and what you can do to improve your soil health. Light refreshments will be available. Location TBA.

***Workshops and events are subject to change. Please check our calendar for all activities at**

www.morganconservationdistrict.com/calendar

EQIP Sign-Up Notice

Have a resource concern you are ready to address or a management system you want to try? We are ready to help. Applications for EQIP financial assistance are accepted throughout the year. Specific deadlines are set for ranking and funding opportunities within each state. Download and complete the EQIP application form at <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/>, then click "Apply to EQIP"

Contact your local NRCS field office for more information. Applications will be accepted for all eligible lands and persons.

Eligible land includes:

- Cropland and Hayland
- Rangeland
- Pastureland
- Non-industrial private forestland
- Other farm or ranch lands

Eligible person(s) include:

- Agricultural producers
- Owners of non-industrial private forestland
- Indian Tribes
- Those with an interest in the agricultural or forestry operations

Additionally, farm records must be established or updated with the Farm Service Agency for both the person (s) and the land for your application to be eligible and evaluated. Farm records for the person must indicate the applicant:

- Controls or owns eligible land;
- Meets adjusted gross income (AGI) and payment limitation provisions;
- Is in compliance with highly erodible land and wetland conservation requirements

In addition to these requirements, approved participants, through consultation with NRCS conservation planners, must develop an EQIP plan of operations that addresses at least one natural resource concern.

Note: Additional restrictions and program requirements may apply. Contact your local office for information specific to your application



Environmental Quality Incentives Program

What is the Environmental Quality Incentives Program?

The Environmental Quality Incentives Program (EQIP) assists farm, ranch, and forest production and improves and protects environmental quality. The Farm Bill program offers financial and technical assistance to help agricultural producers voluntarily implement conservation practices that keep lands healthy and productive.

The Plan

The Natural Resources Conservation Service (NRCS) assists applicants with developing conservation plans for EQIP enrollment. Plans include conservation practices that meet NRCS' standards and the applicant's objectives.

Applications are ranked based on the level of conservation benefits that will be achieved in meeting those objectives.

The Professionals

NRCS offers expert analysis and recommendations to help you plan and design conservation improvements for your farm. Our technical assistance is one-on-one, personalized advice and support — and is offered free of charge.

Eligibility

Farmers, ranchers, and forest landowners who own or rent agricultural land are eligible. EQIP offers payments for over 100 conservation practices to help all types of farmers and landowners.

How to Apply

Landowners or agricultural producers may apply by contacting their local USDA service center in the county in which the land is located.

Eligible Practices

- Buffer strips
- Contour strip cropping
- Cover crops
- Critical area plantings
- Erosion control
- Grassed waterways
- Grazing management
- Livestock water systems
- Manure management systems including storage structures and barnyard runoff protection
- Nutrient management
- Pollinator and wildlife habitat
- Stream exclusion

Something for Everyone

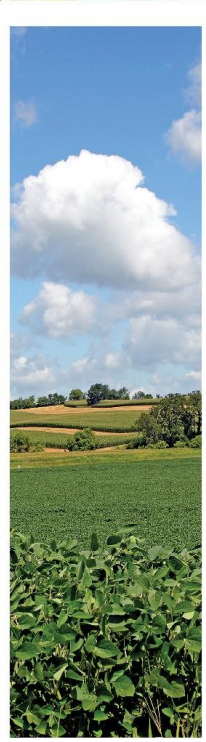
EQIP offers assistance for all types of agriculture, including:

- Conventional and specialty crops
- Forestry and wildlife
- Historically underserved farmers*
- Livestock operations

*Special payment rates available for farmers who qualify under beginning, economically and socially disadvantaged criteria. Special provisions apply to qualifying veterans.

For more information about EQIP, visit: www.nrcs.usda.gov/EQIP

USDA is an equal opportunity provider, employer and lender. EQIP Factsheet • October 2018



Natural Resources Conservation Service
nrcs.usda.gov/

A "how to" guide to Windbreaks

By: Stephen Smith

The most important thing on establishing a successful windbreak that will shelter your home, barns, livestock and wildlife - make a good plan!

What do you want your windbreak to do for you? In Morgan County, Colorado, the big winter storms come from the north and west, but local sites can have prevailing winds



An example of a successful living snow fence

from other directions. So generally, you would plan a windbreak to shelter on the north and west sides. Use trees, shrubs, or grasses that are tough enough for the climate here in Morgan County, Colorado! The Colorado State Forest Service has an excellent booklet, "Trees for Conservation" that gives a brief discussion on trees that work in Colorado. For Morgan County and nearby areas in northeast Colorado, you should use trees with good or excellent drought tolerance. Even trees with supplemental water have a hard time thriving if they don't meet the good or excellent rating for drought.

Looking in "Trees for Conservation", you'll see a mature size listing for height and spread - **DON'T** plant them any closer than the width of the spread, whether that is 5 ft or 30 ft! Bur oak and ponderosa pine look too sparse and lonely initially when planted at their mature spread, but nothing is sadder than

having to go back and cut out every other tree after 10 years effort and tree growth.

For good windbreak coverage, you will probably want to plant multiple rows. If possible, plant a different tree or shrub in each row. That reduces disease and insect problems that might devastate a single species planting. Between the rows - make sure your space is enough to mow and maintain between the rows. For Morgan County, generally 20 foot is the recommended spacing between rows. Remember, the spacing in-row between plants is based on the mature plant spread. Find out if your selected tree or shrub can stand branches touching their neighbor or if there needs to be a clear space between branch tips.



A staggered wind break of eastern red cedars lined with tumbleweeds. Allowing for room between the trees will ensure that tumbleweeds can be cleaned out.

For Rocky Mountain Juniper or Eastern Red Cedar, you should allow enough space for them to self clean from tumbleweeds - a huge fire hazard that can destroy your years of effort in a few minutes.

A recommendation for those two species would be 12 foot in the row spacing.



Be sure to provide plenty of room for the seedling tree to grow. Above is an example of a hole dug which does not have enough space for the seedling tree.

In a near desert like Morgan County, Colorado, use a good weed barrier / moisture conservation cover to reduce weed competition and conserve the moisture that falls on your plants. Remember the wind and keep the fabric tied down well to the ground with heavy duty staples. Make sure the fabric is slit in an X to the size of the mature trunk. If the hole is not big enough, the fabric may girdle the growing tree trunk. Lastly, look up, look down, look all around! **DON'T** plant under powerlines. **DON'T** plant over water or other utility lines - call for a utility locate if there is the slightest possibility that there are buried utility lines or facilities in the area. Lastly, stay back 30 feet from fences or property lines - it makes maintenance easier and avoids conflicts with neighbors who may have a different vision for use of the area. Stay the width of the mature plant spread away from houses or barns - you don't want roots impacting your foundations or branches falling on top of the structure.

For helping designing your windbreak, contact the Morgan Conservation District or the Fort Morgan office of the Colorado State Forest Service.

Rental Equipment

If you need help planting trees or laying down fabric, the District offers both a tree planter and fabric layer for such activities. Our fabric layer works best with 6' x 300' rolls of fabric. Please use at your own risk.

\$100 Deposit

\$25/day for members

\$75/day for non members



Regulation 85: What it is and what you need to know

We spoke with Kenan Diker of Colorado Department of Public Health and Environment to learn more about “Reg 85”. For more information, visit their website at <https://www.colorado.gov/pacific/cdphe>



Photo credit: Colorado Department of Agriculture, <https://www.colorado.gov/agconservation>

1. What exactly is

Regulation 85 and how does it affect agricultural producers? Regulation 85 is also known as the *Nutrients Management Control Regulation*. In 2012, Colorado passed Regulation 85, along with Regulation 31, to address nitrogen, phosphorus, and chlorophyll a in the state’s surface water in accordance with the Clean Water Act. Controlling nutrients is important since excess nutrients in water results in:

- Faster growth of algae than ecosystems can handle
- Too much nitrogen in groundwater that can impact drinking water supplies
- Algal blooms that may be harmful to humans and pets, and can impact drinking water and recreational activities

In Colorado, adverse impacts of nutrients are seen in both river and reservoirs. Regulation 85 addresses both point sources (wastewater treatment plants) and non-point sources which includes most agricultural activities. At this time, nonpoint sources are not regulated and nonpoint sources controls are achieved by voluntarily implementing best management practices (BMP). However, section 85.5(5)(c) (iii) of Regulation 85 states that “Pursuant to section 25-8-205(5), C.R.S., after **May 31, 2022** the water quality control com-

mission (WQCC) **may consider adopting**, in consultation with the commissioner of agriculture, **control regulations** specific to agricultural and silvicultural practices if the WQCC determines that **sufficient progress** has not been demonstrated in agricultural nonpoint source nutrient management.” (Emphasis added). This means if there is no sufficient progress by the above date, the WQCC may impose regulations on the agricultural sector to control nutrients.

2. What are the most important things that landowners and agricultural producers need to know regarding Regulation 85?

- Potential for regulation on nutrients (see answer to question 1) if no “sufficient progress” has been shown by May 31, 2022.
- Producers are encouraged to adopt/continue adopting BMP(s) to control nutrient loading to state waters (lakes, rivers and streams) as part of multi-benefit activities that will restore and protect water quality and also help the producers’ bottom line.
- Regulation 85 encourages the water quality control division (division) to collaborate on outreach and provide incentives/grants to participating producers. Please note that the division

How Does Regulation 85 Impact Agriculture?



has been working with the producers and CSU on these items. In terms of outreach, CSU developed several videos to share experiences and provide information from the agricultural community directly. These videos, along with other resources can be accessed at <https://coagnutrients.colostate.edu>

- Regulation 85 also allows the producers to trade nutrient credits with point sources to restore and protect water quality. This may help producers’ bottom line.

3. What actions can landowners and agricultural producers take to limit mandatory guidelines under Regulation 85?

Again, Regulation 85 does not have any mandatory guidelines/requirements at this time for nonpoint sources of nutrient pollution. Regulation 85 encourages producers to participate in controlling nutrient loading by adopting BMPs such as buffer strips, cover crop, irrigation efficiency improvement and/or reduced/optimized fertilizer applications. By adopting BMPs and sharing experiences and data with the division together we may be able to show “sufficient progress”. Participating in WQCC hearings and other meetings on Regulation 85 would also be very helpful.

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4. When do voluntary water management practices become mandatory? Under Regulation 85 the only way voluntary actions to control nonpoint source nutrient pollution would become mandatory is if after not demonstrating “sufficient progress” and in consultation with the commissioner of agriculture the WQCC decides in 2022 to regulate these types of nutrient sources.

5. Are there any resources that are available to landowners and agricultural producers who are interested in learning more about Regulation 85?

Absolutely, below links can be very helpful:

https://www.colorado.gov/pacific/sites/default/files/85_2017%2812%29.pdf

<https://www.colorado.gov/pacific/cdphe/nutrients/nutrients-incentive-program>

<https://coagnutrients.colostate.edu/>

6. How can Conservation Districts assist in the efforts of Regulation 85?

Conservation districts can be very instrumental in the efforts required by Regulation 85. Districts can identify BMPs to be implemented and collectively apply for funding opportunities through the division’s nonpoint source program, <https://www.colorado.gov/pacific/cdphe/nonpoint-source-pollution-management>, as well as NRCS and other funding sources. Also, one of the division’s goal is to conduct peer-to-peer outreach and conservation districts can play a very important role educating producers about Regulation 85 and effectiveness of BMPs at controlling nonpoint sources of nutrients and helping a producers’ bottom line.

7. Will there be State programs or grants to help address water management practices under Regulation 85?

Please see response to question 6. The nonpoint source program has annual funding opportunities. This requires 40% of total project

cost match (cost sharing) and anyone interested in implementing BMP(s) can apply. There are other requirements associated with this funding which can be found at <https://www.colorado.gov/pacific/cdphe/nonpoint-source-pollution-management>

8. Are there similar regulations in other States or on a National level? Will there be similar regulations in other State or on a National level in the foreseeable future?

As far as I know the state of Nebraska has some restriction on fertilizer use. The state of Ohio has recently started restricting fertilizer and manure use and there are other nutrient restrictions in place in Massachusetts and other states in the Chesapeake Bay area with varying scopes and focus points.

9. Why is Regulation 85 important? Why should landowners and agricultural producers care about it?

Regulation 85 is important since it is the first step in regulating nutrient loading to the state waters from point sources and it is the first state regulation to call out the expectation of voluntary nonpoint source controls from the agricultural community. Agricultural producers should know about it so that they can help the division demonstrate “sufficient progress” in controlling nonpoint sources of nutrients. Note that information about the continued implementation of BMPs could be an essential part of showing progress to avoid potential new nutrients regulations. Knowing this important factor, it is crucial that landowners and agricultural producers share their BMP implementation information and their experiences about those BMP(s) as they relate to nutrient loading reductions.

10. Anything else you would like to add?

First of all, I would like to thank you for making Regulation 85 a part of your newsletter. This is a great way to reach out to

your community to raise awareness on Regulation 85. The WQCC adopted Regulation 85 in 2012 as a first step to regulate nutrient loading to the state waters and asked for demonstrated ‘sufficient progress’ from agricultural activities by May 2022 to make a decision as to if further regulation on agricultural activities is necessary. Therefore, it is critical for agricultural communities in the state to participate and be involved in the process to demonstrate agricultural nutrient reductions. In order to make this happen, it is necessary to communicate producer experiences and collect and share any data available about the effectiveness of implemented BMPs in reducing nonpoint sources of nutrients to state waters. We have been working with several agricultural organizations including ColoradoCorn and Colorado Livestock Association to reach out to agricultural communities to participate in the process, raise awareness about Regulation 85 and to collect data. Furthermore, we have been providing producers with incentives/grants to implement BMPs that help reduce nutrient loading. We will be happy to work with you if you would like to participate in Regulation 85 communications and implementation of BMPs. For funding opportunities please visit our website at <https://www.colorado.gov/pacific/cdphe/nonpoint-source-pollution-management>.



Photo Credit: Colorado Ag Water Quality, <https://coagnutrients.colostate.edu/>

Beekeeping for Beginners

We spoke to Don Studinski, founder of Honeybee Keep, LLC to learn more about beekeeping and what beekeepers need to know. For more information, visit his site at www.honeybeekeep.com

1. In your opinion, what is the most important thing for beekeepers to know? Choosing a single item is a huge stretch. Beekeeping is something you spend years learning. This is part of why I like it so much. I'll never learn it all. It gives me a challenge for the rest of my life to learn. But, at this time in history, the most important thing for beekeepers to know is about varroa mites.

2. What are some beekeeping practices that you would recommend which create the best possible environment for bees? And for higher yields of honey or wax? Honey bees need access to food and water, all year around. Beekeeping is called animal husbandry. It's the beekeepers job to ensure the bees have what they need. That starts with picking a spot for the bees and continues with on-going monitoring. The best possible environment is full of flowers that bloom all year around. Abundant food for the bees will translate to abundant honey and wax for the beekeeper if the beekeeper is doing the husbandry to keep the bees healthy.

3. Is it necessary for beekeepers to get a new queen to replace their old one? If so, when? My philosophy (and I'm the only one I've ever heard of that has this philosophy) is that a queen is a colony and a colony is a queen. I say that because whenever a queen is lost, that line of genetic material is lost. Her offspring live out their lives and that's the end. These days, queens last 3 or maybe 4 years at most. There are 2 options for replacing her. One is to get the workers to raise a new queen on their own. This may or may not succeed. The other is to buy a replacement

queen and introduce her to the workers gently. This too may or may not succeed.

4. What are your recommendations for beginner beekeepers?

Our industry currently puts much to much emphasis on "more" beekeepers and not enough emphasis on "better" beekeepers. There are many ways ... other than beekeeping ... for people to help their habitat. Planting flowers is one example. Not using poisons is another. But, if you must become a beekeeper, then get realistic about the cost and the learning curve. To do it right, you will be spending a few thousand dollars and you will be investing substantial time with your hands on the woodenware with living bees. Short of that, the reality is you are a bee "haver" not a beekeeper. And your bees will likely die. Again, beekeeping is animal husbandry, it's not an observers game; get in and get your hands sticky.

5. Would you recommend that beekeepers ventilate their top box in Winter? No. Ventilation is not a top box subject. It's a hive subject. I recommend that beekeepers always ensure their bees have adequate ventilation ... 12 months per year. I'm currently using a strategy where there's a small round hole entrance in the bottom box (of the stack) and a top entrance on the top box (of the stack) no matter how many



Photo Credit: C.W. Scott

boxes are making up the hive. This seems to be doing well for my bees, however, I need more years doing it to draw conclusions.

6. In your opinion, what is the best treatment for Varroa Mite? Bee Informed Partnership provides good information about the effectiveness of each treatment method. New methods are added every year and some methods disappear. It's important to vary your treatments from time-to-time. By doing so, you reduce the likelihood of resistance in both the mites and the bees. The advice of the industry for how to treat for mites changes every year, as you would expect, because we are learning more about the mites every year. In 2018, I used a combination of Oxalic Acid and Thymol. This year, I'm thinking of a similar, but not exactly the same, strategy. However, I'm always gathering new information and may change my mind. I used Oxalic Acid vapor in February of 2019.

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7. What are the best plants for beekeepers to have around their colonies in North or Northeast Colorado? Are there any animals that are good to keep near bees as well? I'm not much of a plant expert, but bees love anything in the mint family. Bees also have a preference by color. They like blues and purples best, followed by reds and oranges and lastly yellows and whites. However, they will visit all colors. I'd say plant flowers you enjoy, especially native species and the rest will follow naturally. As for animals, bees can live in harmony with pretty much any animal. For example, when I get asked about dogs around bees, I tell the client that it will only take one sting and the dog will leave them alone. So far, that has always worked.

8. How would you recommend keeping swarms that may result from a hive? A swarm is the birth of a new colony. A beekeeper is watching for the signs well in advance and adjusting. Depending on what the husband wants to happen, different actions may be appropriate. This is a big topic, not a sentence or two. However, my preference is usually to prevent the swarm by splitting the colony into multiple colonies. If a swarm happens, then ideally it will be hived and cared for.

9. What should beekeepers feed their bees to provide them with extra sustenance and nutrition? The answer depends on time of year and what's happening

with the weather and the blossoms. Every living thing needs protein and carbohydrates as well as water. In the case of bees, we have access to protein substitutes (there are many to choose from) and I prefer pure cane sugar if I need to provide carbohydrates. Sometimes I'm making syrup, other times I'm making hard candy. I like to have spare food on hand almost all the time; just in case.

10. How will beekeepers know if there hives are prepared for Winter? What is the best way to protect bees from the cold and moisture during Winter?

The test for winter preparation is called the heft test. Along the front range, the rule of thumb is that each colony needs 60 to 90 pounds of honey to get through winter. That means the beekeeper doesn't get harvest until after that threshold is reached. Ideally, bees eat what they provide for themselves. Moisture in a hive is an issue (see discussion of ventilation above). Cold is not what kills the bees. Bees maintain the temperature in the hive. If they are raising brood, then they keep the brood area between 92 and 95 degrees F all year around. I've got bees at 9300 feet elevation and they are just fine. People worry much too much about temperature and not enough about food and parasites.

11. Is there anything else that you would like to share with potential or current beekeepers? Beekeeping is a thinking



Don Studinski teaching one of his classes

Credit: www.honeybeekeep.com



Don Studinski at one of his consulting sessions

Credit: www.honeybeekeep.com

person trade. There are no cookie cutter answers. Study the science and art of the trade. Study about the bees. Using that knowledge, assess your current situation and do the husbandry needed. Anything you read or are told that sounds like every April this or every June that is probably bunk. The real answer is "it depends" and you have to think through it.



Honeybee Keep, LLC is offering a "ride along" service in 2019 for \$40 / hour with the bees. Don is almost always out with the bees. Ride along. Get one-on-one time. Get your questions answered. Call for an appointment, 303-248-6677.

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