

## Fall 2020 Newsletter

### Office Update

We are no longer in the office during regular business hours. If you need to contact us, please reach out at 970-427-3362 or email us at [morganconservationdistrict@gmail.com](mailto:morganconservationdistrict@gmail.com).

### Conservation Tree Seedling Sales

It's that time of year again! Conservation Tree Seedling Sales are open for the 2020-2021 season. There will be a few changes to the order process this year. All orders will be placed online at our website, [www.morganconservationdistrict.com/shop](http://www.morganconservationdistrict.com/shop). However, order forms will be available per request.

**Bare Root trees will be sold in bundles of 25 trees for \$35.00 plus tax (\$37.42).**

**Large Tube trees will be sold in bundles of 10 trees for \$35.00 plus tax (\$37.42).**

Please place your order as soon as possible as we cannot guarantee availability. Right now, we are still working with a few nurseries to secure various species. Current inventories can be found on our website, and as we continue to place orders with other nurseries, more stock will be added. If you would like to be notified of our inventory changes please subscribe to our mailing list or feel free to contact us.

If you are interested in purchasing a bulk order or a custom windbreak, please contact us. Discounts may be offered for bulk orders.

We also offer tree planting supplies such as weed barrier fabric, staples, polymer, and fertilizer tablets. These items can also be ordered on our website.

If you need help placing an order or have questions, please feel free to contact us at 970-427-3362 or [morganconservationdistrict@gmail.com](mailto:morganconservationdistrict@gmail.com).





## CACD Colorado 2020 Legislative Wrap-Up

The 2020 Colorado legislative session was anything but typical. Though it began in normal fashion on January 8, both chambers recessed on March 13 due to COVID-19 emergency orders, and did not reconvene again until May 26, a 72-day interruption. Through the course of the emergency recess and the coinciding economic shutdown, the state suffered a \$3.3 Billion revenue shortfall, resulting in unprecedented budget cuts to the state budget. There were no funding cuts to the Conservation Districts budget, however.

When the legislature reconvened, the remaining session lasted just short of 3 weeks, with the constitutional duties of passing a 2020/2021 budget (Long Bill) and school finance legislation amidst massive cuts being the top priorities for both chambers. Most 2020 bills proposing new programs or new funding lines were killed in the days immediately after returning from recess, as the state essentially jumped back to 2017/2018 budget levels.

Ultimately, the 2020 legislative session adjourned sine die on June 15, concluding legislative activities for the year after meeting for only 84 of the constitutionally-allowed 120 days. In turn, the governor's signing window closed on July 15 with little fanfare. Unless the Governor calls a special session, which I do not foresee, the legislature is out of session until January 13, 2021, when the 73<sup>rd</sup> General Assembly will convene.

Despite the 2018 elections resulting in a strong Democrat trifecta, with a 41-24 majority in the house, a 19-16 majority in the senate, and liberal Jared Polis in the Governor's mansion, this session seemed less political due to the budgetary and health challenges facing the state. It was a clear deviation from normal General Assemblies regarding the politics, policy, and processes that have dictated the regular course of business in my 13 sessions at the legislature.

CACD monitored 42 bills concerning natural resources issues this session. Bill tracking link: <https://coloradocapitolwatch.com/bill-analysis/3749/2020/0/>

Many sectors saw little progress in the 2020 session due to the COVID-19 crisis, and natural resources, agricultural, and rural issues were no exception. CACD ran a piece of proactive legislation, [HB-1115 Sales Tax Exemption For Farm Fencing Material](#), which was introduced in the first few weeks of the legislative session. CACD board members and others testified in front of the House Finance Committee, where the measure met resistance from urban legislators from both parties. We were working to educate the members of the committee on the inconsistencies in the application of sales taxes on agricultural goods, particularly fencing, when the COVID-19 emergency recess occurred. After returning, nearly all new tax benefits were killed, and HB-1115 was no exception.

Due to a constrained budget and calendar, there will be no legislative interim committees this year, including Water Resources Review Committee, which was codified by [SB-214 Suspend 2020 Legislative Interim Committees](#). This will likely mean less bills being introduced in the early days of the 2021 session, but we are still working to determine what this shortened interim and political season will look like regarding bill drafting and stakeholder processes.

I appreciate the opportunity to represent your interests in Denver!

Brett Moore, OnTheBallot Consulting

# Regulate Runoff from Farms? Regulation 85 and Agriculture

Phil Brink, Brink, Inc.

October, 2020

Agricultural producers have used conservation practices for decades to increase yields, improve soil health and reduce losses of precious soil, water and nutrients. Recently, the results of a large modeling project confirmed the effectiveness of a few conservation practices commonly used in Colorado. Modeled practices included irrigation upgrades – sprinkler and drip irrigation – as well as reduced tillage and field buffer strips.

The impetus for the study was Regulation 85; a state regulation designed to reduce discharges of total nitrogen and phosphorus from both point sources and non-point sources of pollution. Examples of point sources of pollution include public wastewater treatment plants and factories that discharge treated wastewater. Agricultural fields are considered “nonpoint sources of pollution,” along with forest land, rangeland and essentially anything else that is not considered to be a “point source.”



*Reduced tillage and sprinkler irrigation, Morgan County, CO. Photo: Phil Brink*

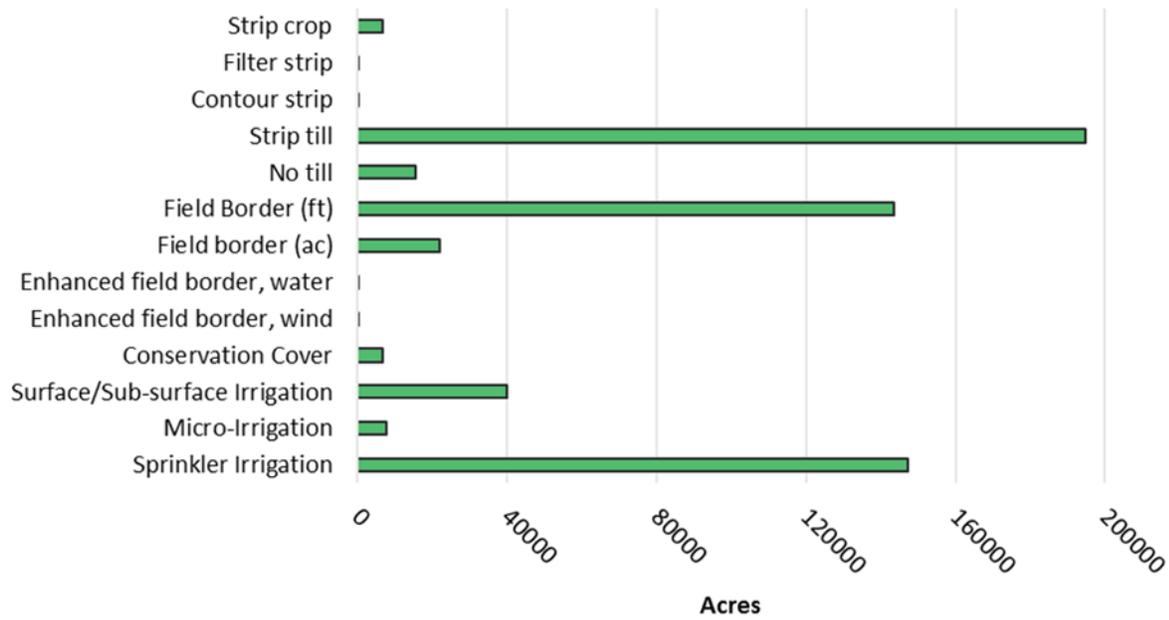
When Regulation 85 was put into place in 2012, it gave nonpoint sources of pollution 10 years to voluntarily implement best management practices that reduce pollutant discharges. If, by May 31, 2022, the Water Quality Control Commission determines that voluntary practices have not been sufficient to reduce nutrient runoff, “the Commission may consider adopting control regulations specific to agricultural practices.”

A few weeks ago, on October 13<sup>th</sup>, 2020, the Commission held a triennial review to hear input from stakeholders representing agriculture and other nonpoint pollution sources about progress on reducing discharges of nutrients to surface waters. A modeler from Colorado State University – Tyler Wible - and I presented the results of a collaborative effort that quantified how certain conservation practices have affected nitrogen and phosphorus losses from the edge of fields. CSU’s new Edge of Field Conservation Tool was used to model irrigated fields in the South Platte, Republican, Arkansas and Rio Grande River Basins – about 1.75 million acres total - before and after specific conservation practices were installed.

Existing USDA – NRCS Environmental Quality Incentive Program (EQIP) conservation practice data was used in the model. The data represented selected practices installed from 2008 to 2018. The following chart illustrates the acreage associated with each of the practices modeled.

*(Continued on Page 4)*

**Table 1: Conservation Practices Modeled and Associated Acreages**



**Modeling Results:**

Both Total Nitrogen (TN) and Total Phosphorus (TP) were reduced the most through Irrigation upgrades (7.1% reduction in TN and 33.5% reduction in TP). Strip tillage and No-till each reduced TN by 6.9%. Total Phosphorus was also significantly reduced with vegetative Field Borders (30.1% reduction), followed by strip till and no-till practices (29.6% and 24.4% respectively).

**Table 2: Conservation Practice Effects on Total Nitrogen and Phosphorus**

EQIP-Funded Conservation Practice	% Reduction of Total Nitrogen	% Reduction of Total Phosphorus
Baseline	-	-
Irrigation (Sprinkler and Drip)	7.1	33.5
Field Border	6.3	30.1
Strip Till	6.9	29.6
No Till	6.9	24.4
Strip and No Tillage Combination	6.4	23.4

This modeling study is the result of the ag industry’s interest in demonstrating that its use of voluntary BMPs are reducing nutrient discharges from fields. Funding for the study came from Colorado Corn, Colorado Live-stock Association, Colorado Pork Producers Council, Colorado Public Health and Environment, and the Colorado Water Conservation Board.

The study results are available at:

[http://onewatersolutions.com/wp-content/uploads/2020/09/EQIP\\_Report\\_Sept\\_2020\\_FINAL.pdf](http://onewatersolutions.com/wp-content/uploads/2020/09/EQIP_Report_Sept_2020_FINAL.pdf)

# Where Are We With Regulation 85?

By Kenan Diker and Tammy Allen

Nutrients are essential for plant growth, however, excessive amounts of nutrients – primarily nitrogen and phosphorus - in water can be harmful to health and environment which need protection. In some cases, the impacts caused by nutrients can result in an elevated nitrate level in drinking water causing methemoglobinemia in infants. Furthermore, improper use of fertilizers can adversely impact farm profitability and water resources. Adverse effects of nutrients are seen in both rivers and reservoirs in Colorado and other parts of the United States. In 2007, EPA encouraged all states and territories and authorized tribes to accelerate their efforts and give priority to adopting numeric nutrient standards to address excess nutrient pollution impacting our waterways.

In response, the Water Quality Control Commission (commission) promulgated the Regulation #85 in 2012 to control nutrient pollution from both point and nonpoint sources. The commission directed the Water Quality Control Division (division) to report on the progress in implementing the voluntary nonpoint source activities identified in Regulation #85 during triennial reviews of the regulation. The commission also directed in Section 85.5(5)(c)(iii) that “Pursuant to section 25-8-205(5), C.R.S., after May 31, 2022 the commission may consider adopting, in consultation with the commissioner of agriculture, control regulations specific to agricultural and silvicultural practices if the commission determines that sufficient progress has not been demonstrated in agricultural nonpoint source nutrient management.”

To facilitate the commission’s decision making regarding sufficient progress, the division submitted a progress report to the commission in October 2020. The progress report focused on the four main nonpoint source provisions in Regulation #85:

- Collaborating with the agricultural community to implement best management practices (BMPs)
- Implementing public information and education programs focused on nonpoint source pollution prevention and restoration activities
- Developing and implementing nonpoint source monitoring programs and
- Evaluating nonpoint source to point source nutrient trading proposals.

Understanding it would take a number of years to collect data showing change in water quality from nonpoint source reduction activities and also given the process of establishing statewide nutrient standards against which progress could be measured was still underway, the division identified the following near-term metrics to assess sufficient progress under Regulation #85:

- Commitment of resources
- Participation by nonpoint source partners and producers
- Reduction of nutrient impacts caused by nonpoint source pollution controls

Through funding and technical assistance, leveraging resources and promotion of projects with multiple benefits, the division and its partners in the agricultural sector made significant progress implementing BMPs to reduce nutrient impacts. These efforts were foundational to achieving water quality improvement through on-the-ground nutrient management activities and were based on momentum already gained through years of controlling selenium and other pollutants from nonpoint sources.

Division-and partner-supported BMP implementation projects such as irrigation efficiency improvements, cover crops, buffer strips, lining of earthen canals among others, were evaluated as the division assessed effectiveness of collaboration with the agricultural community to implement best management practices. The division determined that since 2016 when the Nonpoint Source Program changed its focus to the agricultural nonpoint source control, the division provided nearly \$3.5 million in support of nutrient BMP implementation with local match equaling at least \$1 million. In addition, participants receiving nonpoint source funding assistance to implement BMPs increased from single digits to about 25.

*(Continued on Page 6)*

The USDA Natural Resources Conservation Service, Environmental Quality Incentives Program (NRCS EQIP) funding support for statewide BMP implementation, including nutrient BMPs, averaged \$27.5 million per year in Colorado for last ten years with annual local match exceeding \$6.9 million.

The division also believes that there are private investments in BMP implementation at an unknown amount. The division witnessed a case where the division provided resources for installation of three sprinkler systems with the assistance of nonpoint source funding and six additional sprinkler systems were installed through private funding in a small watershed in the Lower Arkansas River region. This example indicates that the private sector contribution was considerable in BMP implementation. EQIP data and CSU survey results also demonstrate voluntary statewide implementation of several nutrient BMPs, including split and in-season nitrogen application, buffer strips, cover crops, rotating between shallow and deep-rooted plants, conservation tillage and grassed waterways.

Initial results from nutrient BMP implementation indicate that improved water application efficiency is resulting in less runoff of nutrients, sediments and other pollutants with less contribution of pollutants to groundwater and surface water. Early data from one project indicate nitrate concentrations reduced by more than 50% and phosphorus concentrations reduced by approximately 25% when buffer strips are employed. Furthermore, Colorado State University modeling shows that voluntary BMP implementations funded by the NRCS EQIP program resulted in 8.2% total nitrogen and 27.7% total phosphorus reductions over time.

As for the Regulation #85 provision of working with partners to implement public information and education programs, the division, and its partners developed very intensive public information and education program that focused on nonpoint source agricultural nutrient control. The division provided about \$200,000 with about \$100,000 local match for this effort. The division conducted 20 outreach activities while its partners conducted more than 120 outreach and education activities, reaching out to thousands of stakeholders. The division and its partners used websites such as [coloradoagnutrients.colostate.edu](http://coloradoagnutrients.colostate.edu) to disseminate information about Regulation #85. Data demonstrate that the website saw over 9,700 sessions.

The information and education program focused on peer-to-peer education and outreach to be most successful. As mentioned before, the division focused its resources to agricultural nonpoint source control about 4 years ago. At that time, agricultural participation in the nonpoint source control through the Nonpoint Source Program was limited. Outreach and education activities resulted in considerable expansion of agricultural participation in the nonpoint source funding assistance program to control agricultural nonpoint sources. During the first year, the division received funding assistance requests that asked for less than half of available nonpoint source funding. Participation and grant requests grew over a few short years and now the total funding assistance requests from agricultural and other sectors are over the total available funds. The division also observed an increase in requests for information about the nonpoint source funding assistance program and Regulation #85 and the diversity of participants in the program increased.

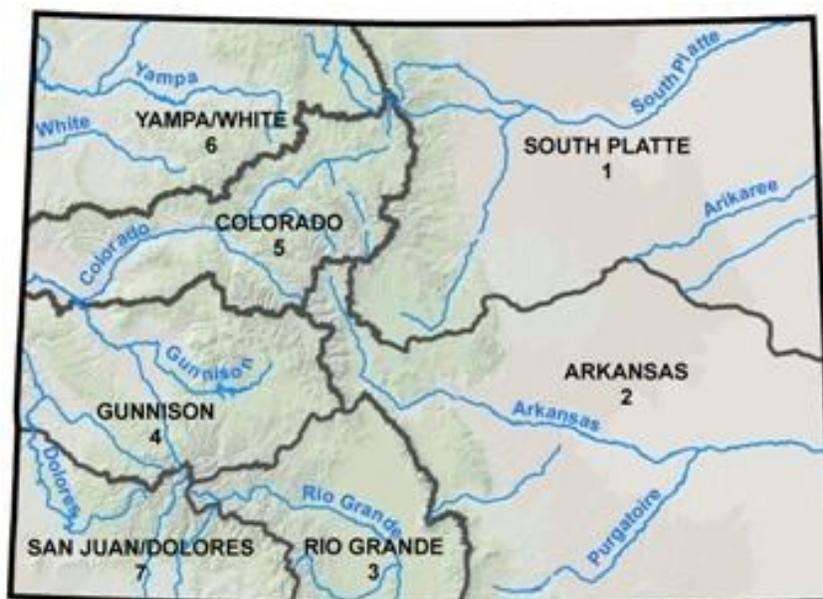
The commission also requested the development and implementation of nonpoint monitoring programs to evaluate the effectiveness of BMPs to ensure nutrient impacts are controlled to the maximum extent practicable, and resources are expended appropriately. A significant number of BMPs have been implemented over time in Colorado to control nonpoint source pollution from agricultural activities. In some cases, water quality data have been collected to evaluate changes in receiving waters as a result of BMP implementation; however, no water quality data have been collected from these BMP implementation sites to assess the water quality leaving the field itself in order to evaluate the effectiveness of implemented BMPs in reducing pollutants in receiving waters. This field-scale monitoring is referred to as edge-of-field monitoring and the division worked with producers and other partners to incorporate edge-of-field and pre- and post-project monitoring to understand nutrient reductions from the voluntary nonpoint source activities discussed in Regulation #85.

*(Continued on Page 7)*

The division reported to the commission its efforts to incorporate edge-of-field monitoring into its contracts to promote field-scale data collection about BMP effectiveness. Four of five agricultural contracts now include this type of monitoring. Division's partners also promoted edge-of-field monitoring. Colorado State University (CSU)'s edge-of-field monitoring sites increased from one to seven sites. Furthermore, the agricultural community, in collaboration with the Colorado Department of Agriculture, supported increased surface water quality monitoring through the Agricultural Chemical Management Program. The program will raise \$750,000 for additional staff and monitoring. On the research front, CSU is working to refine edge-of-field monitoring systems to be more cost-effective to help expand the monitoring in the near future.

The fourth provision relating to nonpoint source control in Regulation #85 encourages nonpoint source to point source nutrient trading. Under the Clean Water Act, water quality trading is an option for compliance with water quality-based effluent limitations in point source discharge permit and Regulation #85 recognizes how trading between these different categories of sources can create environmental benefit as well as promote cost-effectiveness. In Colorado, trading is conducted under the guidance of the Colorado Pollutant Trading Policy (October 2004). The policy provides a framework for trading between point sources, as well as non-point and point sources for applicable pollutants. Colorado has utilized nutrient trading for a number of years as part of implementing watershed control regulations for nutrients and under these watershed control regulations as well as Regulation #85, in 2020, the division approved a nonpoint source to point source trade to achieve a net environmental benefit without causing adverse localized impacts.

Based on the evaluation of accomplishments for each of the four nonpoint source focus areas, the division found in its October 2020 progress report to the commission that voluntary nonpoint source actions under Regulation #85 have been effective at managing nutrients and recommended no changes to the nonpoint source provisions. The commission agreed which means the division will continue to work with its partners to implement the voluntary nonpoint source provisions currently identified in Regulation #85. In 2022, the division will present to the commission another sufficient progress report in order to evaluate if revisions to the nonpoint source provisions are necessary at that time. The agricultural community can help the division to continue demonstrating sufficient progress under voluntary nutrient controls by participating in the nonpoint source funding assistance program, continuing to implement BMPs around the state and collecting and sharing BMP effectiveness data. To participate in the nonpoint source funding assistance program please visit [npscolorado.com](http://npscolorado.com).



*A Map of the seven major river basins in Colorado  
(Photo credit: Colorado Ag Water Quality)*

# Conservation Stewardship Program Requirements

NRCS Conservation Stewardship Program (CSP) helps you build on your existing conservation efforts while strengthening your operation. Whether you are looking to improve grazing conditions, increase crop resiliency, or develop wildlife habitat, we can custom design a CSP plan to help you meet those goals. We can help you identify natural resource problems in your operation and provide technical and financial assistance to solve those problems or attain higher stewardship levels in an environmentally beneficial and cost-effective manner. For example, we can look at ways to address the amount of soil lost; mitigate the impact of excess water; reduce the contribution of agricultural operations to airborne soil particles and greenhouse gas emissions; improve the cover, food, and water available for domestic and wildlife species; or promote energy efficiencies for on-farm activities. If you are already taking steps to improve the condition of the land, chances are CSP can help you find new ways to meet your goals.

The following is a list of items required with your application in order to be considered.

- FSA farm records must be updated for the applicants AGI, 1026, HEL. Entity documents must be in place prior to application that outlines signature authority.
- Maps must be presented with the application including acres and land-use
- Lease agreements must be presented with the application outlining the years the applicant has control of the land and must cover the length of the contract period.
- Landowner concurrence forms must be submitted with application
- Baseline farming practices i.e. tillage, nutrient mgmt., pest mgmt., water mgmt., Range mgmt. practices must be presented with the application i.e. number of cattle, rotation etc.



*Photo Credit: United States Department of Agriculture*

If you have any further questions regarding the CSP program or signup periods, please contact our office at 970-867-8568 ext. 3

Natural Resources Conservation Service  
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# Water & Drought Resources

*Courtesy of Colorado Ag Water Alliance*

## **CAWA (Colorado Ag Water Alliance)**

### **Interview on Rangeland Management and Drought**

A recently recorded interview with Retta Bruegger, Regional Extension Specialist with CSU, and Janie VanWinkle rancher from Mesa County and the current president of the Colorado Cattlemen's Association.

You can find the recording at <https://www.coagwater.org/resources>

### **Grant Writing Support**

If you need any assistance writing proposal or managing the grant process, please let us know!

## **CSU Extension**

CSU Extension's Drought Website hosts a lot of current information on drought around the state, and information on how to prepare for drought.

You can read more at <https://drought.extension.colostate.edu>

## **United States Department of Agriculture**

### **Emergency Conservation Program**

The Emergency Conservation Program (ECP) helps farmers and ranchers to repair damage to farmlands caused by natural disasters and to help put in place methods for water conservation during severe drought. This fund can be used to provide emergency water during periods of severe drought for grazing and confined livestock and existing irrigation system for orchards and vineyards.

### **Livestock Forage Disaster Program**

Provides payments to eligible livestock owners and contract growers who have suffered a loss of grazed forage due to a qualifying drought during the normal grazing period for the county.

### **Noninsured Crop Disaster Assistance Program**

NAP provides financial assistance to producers of noninsurable crops when low yields, loss of inventory, or prevented planting occur due to natural disasters.

# Water & Drought Resources

*Courtesy of Colorado Ag Water Alliance*



*Photo credit: Colorado Water Conservation Board*

## **Agricultural Emergency Drought Response Program**

The Program provides up to \$1 million annually, in the form of loans or grants, for emergency drought-related water augmentation purposes to Colorado's agricultural water users. Grant funds can be used to lease augmentation water. Loan funds can be used to purchase water rights for augmentation purposes.

Contact: Alex Funk - [alexander.funk@state.co.us](mailto:alexander.funk@state.co.us) – 303-866-3441 ext. 3201

Deadline: Within three months after the end of any fiscal year during which a drought was declared.

## **Flood & Response Drought Response Fund**

This is not a formal grant program with established guidelines or timelines or applications. It is by design an as-needed program to react to circumstances. The money is first and foremost to be used for response to droughts and floods. They can also be used for activities related to preparedness, mitigation, and recovery for those same two threats.

Contact: Megan Holcomb – [megan.holcomb@state.co.us](mailto:megan.holcomb@state.co.us) – 303-866-3441 ext. 3222

## **Water Project Loan Program**

Immediate aid or long-range assistance for large raw water projects (e.g., dams, pipelines, ditches, wells, new projects or rehabilitation).

Contact: Kirk Russell - [kirk.russell@state.co.us](mailto:kirk.russell@state.co.us) – 303-866-3441 ext. 3232

## **Water Efficiency & Drought Planning Grants**

Long-range assistance for water conservation and drought or water storage plans, the implementation of plans, or related public education.

Contact: Ben Wade - [ben.wade@state.co.us](mailto:ben.wade@state.co.us) – 303-866-3441 ext. 3238

# Pumpkin Spice Truffle Cookies

*Recipe by Allyson Ulsh*

## Ingredients

- 2 cups all-purpose flour
- 1 teaspoon baking soda
- 1/4 teaspoon nutmeg
- 1 teaspoon cinnamon
- 1 teaspoon salt
- 1/2 cup (1 stick) butter
- 1 1/2 cups packed dark brown sugar
- 1 teaspoon vanilla extract
- 3/4 cup [LIBBY'S® 100% Pure Pumpkin](#)
- 1 large egg
- 2/3 cups (9-ounce package) NESTLÉ® TOLL HOUSE® Pumpkin Spice Flavored Filled Baking Truffles

## Instructions

**PREHEAT** oven to 375° F.

**COMBINE** flour, baking soda, nutmeg, cinnamon, and salt in a small bowl and set aside.

**BEAT** butter, brown sugar, and vanilla extract in a large mixing bowl until creamy.

**ADD** pumpkin and mix; then add egg and mix.

**GRADUALLY** beat in flour mixture.

**STIR** in pumpkin spice flavored truffles.

**DROP** by rounded tablespoon onto ungreased baking sheets.

**BAKE** for 9-11 minutes or until edges are golden brown. Cool on baking sheets for 2 minutes; remove and place on wire racks to completely cool. Makes about 4 dozen.

*Ally's tip: They will still look raw when you take them out of the oven due to the pumpkin mixture – check the bottom of one cookie to see if it is golden brown while still in oven! I baked for 12 minutes, cooled for 5 minutes, and then placed on wire racks to cool completely.*

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