Agricultural Sales Tax Exemptions

OFFICE OF THE STATE AUDITOR
C O L O R A D O

Tax Expenditure Evaluation • August 2023 • 2023-TE13

The Agricultural Exemptions eliminate the state sales and use tax on most farming and ranching inputs—such as livestock and agricultural compounds—along with farm equipment and special fuel used in farm vehicles.

Based on data from the U.S. Department of Agriculture, the U.S. Energy Information Administration, and the Department of Revenue, we estimate the revenue impact of the exemptions was more than $200 million in 2021.

The exemptions are meeting their purposes because eligible Colorado farmers and ranchers are aware of them and the exemptions appear to be applied to eligible sales; however, the financial benefits from the exemptions vary based on local sales tax policies.

Policy Considerations

We did not identify any policy considerations in this evaluation.

	Agricultural Inputs	Farm Equipment & Parts	Special Fuel for Use in Farm Vehicles
Tax Type:	**Sales and Use**	**Sales and Use**	**Sales and Use**
Expenditure Type:	**Exemption**	**Exemption**	**Exemption**
Statutory Citation:	**Sections 39-26-102(9) and (19)(c)-(f), 39-26-104(1)(a), and 39-26-716(4)(a)-(c), C.R.S.**	**Section 39-26-716(4)(e) and (f), C.R.S.**	**Section 39-26-716(4)(d), C.R.S.**
Year Enacted:	**1943 - 2019**	**1999**	**1977**
Repeal/Expiration Date:	**None**	**None**	**None**
Revenue Impact:	**$249.5 million (2021)**	**$16.8 million (2021)**	**$1.9 million (2021)**
Purpose given in statute or enacting legislation? **No**			

1525 Sherman Street, 7th Floor • Denver, Colorado 80203-1700 • 303.869.2800 • osa.ga@coleg.gov • www.colorado.gov/auditor

Agricultural Sales Tax Exemptions

Background

This evaluation covers several sales and use tax exemptions that apply to the agricultural industry, referred to collectively in this report as Agricultural Exemptions. These exemptions can be categorized into three groups:

- **The Agricultural Inputs Exemptions—exempt most inputs to agricultural operations from state sales and use tax, including the following:**
  - Livestock
  - Feed for livestock
  - Agricultural compounds used in caring for livestock
  - Semen for agricultural or ranching purposes
  - Fish for stocking purposes *(We have included "aquaculture"—the process of raising fish for commercial sale—within our use of the term "agriculture" in this tax evaluation.)*
  - Fertilizer for use in the production of agricultural commodities
  - Spray adjuvants used in caring for livestock or in the production of agricultural commodities
  - Pesticides registered by the commissioner of agriculture for use in the production of agricultural and livestock products
  - Seeds
  - Orchard trees

  Most of these exemptions were created between 1943 and 1999; in 2019 the General Assembly created the exemption for fertilizers used in the production of agricultural commodities.

- **The Farm Equipment and Parts Exemption—exempts sales and purchases of farm and dairy equipment from state sales and use tax.** To qualify for the exemption, the equipment must be used directly and primarily for a farm, ranch, or livestock production operation. Additionally, dairy equipment must be used at a farm dairy in connection with the production of raw milk and not at a commercial dairy or in connection with the production of pasteurized, separated milk products for retail sale. Examples of equipment that qualify include tractors, irrigation equipment with a purchase price of at least $1,000, baling wire, cow identification systems, transponders, and milk containment tanks. Qualifying farm equipment also includes parts that are used in the repair or maintenance of farm equipment, regardless of purchase price. The exemption also covers farm equipment under lease or contract if the fair market value is at least $1,000. Equipment, materials, and supplies used on the farm but not directly in the farm operations (e.g., office supplies or equipment used in the sale or distribution of farm products) are not included in the exemption.

The exemption was created in 1999 and expanded in 2000 and 2001 to include parts used to repair and maintain equipment and dairy equipment and parts to the list of eligible items. In 2019, with House Bill 19-1162, the General Assembly expanded the exemption to include farm equipment and systems to identify or track food animals, such as ear tags and ear tag scanners. Identification and tracking equipment and systems were already exempt for dairy cows, but House Bill 19-1162 extended the exemption to include equipment and systems, specifically electronic and non-electronic ear tags and ear tag scanners, used by non-dairy farms like beef and pork producers to track and identify food animals (such as cattle and pigs) and animals used in the production of food. The purpose of this extension was to provide Colorado's non-dairy animal farmers the same tax benefits as its dairy farmers.

- **The Special Fuel for Use in Farm Equipment Exemption—exempts from state sales and use tax sales of special fuel used for the operation of vehicles used on farms and ranches**. Special fuel means diesel engine fuel, kerosene, liquefied petroleum gas, and natural gas, but does not include gasoline. The exemption was created in 1977 and has remained substantively unchanged since that time.

The Agricultural Exemptions are typically applied at the point of sale. When selling or leasing farm equipment, the vendor is responsible for obtaining a signed affidavit (Form DR 0511) from the person buying or renting the equipment affirming that they will use the equipment primarily and directly in a farm operation. Vendors report exempt sales on the Department of Revenue's (Department) Retail Sales Tax Return (Form DR 0100).

We considered the beneficiaries of the Agricultural Exemptions to be ranchers, farmers, and people who raise fish for commercial sale. According to the U.S. Department of Agriculture (USDA) data, in 2022, there were 39,000 farms and ranches in Colorado with an average size of 815 acres. In 2018, which is the most recent year of aquaculture data available, there were 17 aquaculture farms.

While statute does not state a purpose for the Agricultural Exemptions, based on our review of their operation and legislative history, we considered the exemptions to have several potential purposes, as follows:

- **Ensure that sales and use tax is only levied on consumers making purchases of finished agricultural products instead of agricultural producers who may not be able to absorb the additional tax.** A general principle of sales and use tax is for the consumer of the final product to pay the tax and, therefore, not apply sales and use tax to earlier steps in a product's supply and distribution chain. Agricultural producers are typically "price takers" because the price of most agricultural products is set by national and international markets and individual producers are typically unable to increase the sales price they receive beyond established market rates. Therefore, if the State's sales and use tax were levied at multiple points in an agricultural product's supply and distribution chain or on equipment necessary for agricultural operations, Colorado's agricultural producers would likely have to absorb most of the increased taxes, effectively decreasing their after-tax income. Most farms and ranches operate on small profit margins so absorbing these additional taxes would potentially cause farmers and ranchers significant financial distress. According to the USDA, in 2021, 71 percent of farms in the United States had a profit margin of below 10 percent and were thus high-risk for financial problems.

The Agricultural Exemptions are similar to exemptions the State offers for other industries, like manufacturing, that ensure sales and use tax is only paid when a product is sold to the final consumer. For example, statute [Section 39-26-102(20)(a), C.R.S.] exempts manufacturing inputs, such as raw materials that will become part of a product that will be sold to consumers, from sales and use tax. Statute [Section 39-26-709(1)(a)(II), C.R.S.] also exempts machinery used in manufacturing from sales and use tax because it is necessary for the production of the final product that will be sold to a consumer. Finally, statute [Section 39-26-102(21)(a), C.R.S.] also exempts energy and fuel used in manufacturing from sales and use tax because it is also a necessary component of the manufacturing process.

- **Prevent what is known as "tax pyramiding," which occurs when each transaction in a product's supply and distribution chain is subject to tax.** Tax pyramiding can cause economic distortions, since less tax is paid for products with shorter supply and distribution chains, and can raise the price end consumers pay to the extent that the businesses in a product's production and distribution chain pass the cost of sales tax on to the next business in the distribution chain by increasing their prices. Tax pyramiding also decreases the transparency of the tax system, since final consumers generally are not able to determine how much of the sales price they pay is due to taxes levied during the production and distribution of the product. Therefore, in addition to farmers and ranchers, consumers of agricultural products could benefit from the Agricultural Exemptions because they are not paying for taxes previously levied on the product and can more easily determine the sales tax rate on their purchases.

- **Maintain consistency with other exemptions for food.** Additionally, the General Assembly has exempted many food items from sales tax through the Food for Home Consumption Exemption [Sections 39-26-707(1)(e) and (2)(d) and 714(2), C.R.S.] and the Food Ingredients Exemption [Sections 39-26-102(20)(b)(I) and 39-26-713(2)(b) and (e), C.R.S.], among others. If the State levied sales tax on inputs, machinery, or fuel used to produce food items, consumers could pay some portion of the tax through higher prices, which would undermine the purpose of the exemptions for food items.

To determine whether the Agricultural Exemptions are meeting their purposes, we assessed the extent to which eligible taxpayers are aware of and using the exemptions.

Evaluation Results

We found that, overall, the Agricultural Exemptions are meeting their purposes because Colorado's farmers and ranchers are aware of and applying them. In our previous report on the Agricultural Inputs Exemptions, published in January 2019, we found that they were meeting their purpose after speaking to 18 stakeholders and concluding that Colorado's agricultural industry was generally aware of and applying the exemptions. In our previous report on the Farm Equipment and Parts Exemption, published in January 2022, we found that this exemption was meeting its purpose after reaching out to 18 stakeholders and interviewing three of them—all of whom were aware of and using the exemption.

For this report, we reached out to six of those stakeholders and interviewed three—all of whom confirmed that they still used the exemptions. We also contacted an additional seven stakeholders and spoke with two about the exemptions that have been amended or enacted since 2019—Special Fuel for Farm Vehicles, Farm Equipment and Parts, and Fertilizers—to determine whether they are aware of and applying the exemptions. All of the stakeholders with whom we spoke were aware of the new or modified exemptions.

The financial benefits from the Agricultural Exemptions vary based on local sales tax policies. Although all purchases of eligible items are exempt from state sales taxes, only some local governments apply the exemptions. Specifically, all of the State's statutory cities and counties (which have their local sales taxes collected by the State on their behalf) must adopt all of the Agricultural Inputs and Special Fuel for Farm Vehicles Exemptions. In contrast, under Section 29-2-105(1)(d)(I)(F), C.R.S., statutory cities and counties may opt into the Farm Equipment and Parts Exemption by enacting a local ordinance. Additionally, statutory cities and counties that opted into the Farm Equipment and Parts Exemption prior to August 2, 2019 have the option to enact an additional local ordinance to exempt identification and tracking equipment and systems for food-producing animals, which the General Assembly included under the statutory definition of "farm equipment" in 2019. Conversely, statutory cities and counties that opt to exempt farm equipment and parts on or after August 2, 2019 must also exempt these equipment and systems. According to the Department, 23 of the 52 statutory counties and 15 of the 160 statutory cities that levy a sales tax have opted to exempt farm equipment and parts.

These varying tax policies can result in significant differences in the tax savings provided by the exemptions, as our example tractor purchase scenario illustrates in Exhibit 1. As shown, a farmer purchasing a new $80,000 tractor in Fruita would save $4,000 in city and county taxes because both the city of Fruita (with a 3 percent sales tax) and the county of Mesa (with a 2 percent sales tax) exempt farm equipment from sales taxes. These savings would be in addition to the $2,320 in state sales taxes saved due to the Farm Equipment and Parts Exemption, which would exempt the purchase from the 2.9 percent state sales tax. In sum, the farmer would have a savings of 7.9 percent. Meanwhile, a farmer buying the same $80,000 tractor in Granada would not have any savings in city or county taxes, as neither the city of Granada nor the county of Prowers exempt farm equipment from sales taxes. However, the farmer would save the same $2,320 in state sales taxes as the farmer in Fruita. Overall, this farmer would have a savings of 2.9 percent.

Exhibit 1
Comparison of Hypothetical Sale of a Tractor in Two Jurisdictions with Different Local Sales Tax Treatment of Farm Equipment

	Farmer in Fruita	Farmer in Granada	
New Tractor Purchase	$80,000	$80,000	New Tractor Purchase
Savings from State Sales Tax Exemption for Farm Equipment and Parts (2.9%)	– $2,320	– $2,320	Savings from State Sales Tax Exemption for Farm Equipment and Parts (2.9%)
Additional Savings from City of Fruita (3%) and County of Mesa (2%) Farm Equipment and Parts Exemption	– $4,000	– $0	Additional Savings from City of Granada (0%) and County of Prowers (0%) Farm Equipment and Parts Exemption
Total for New Tractor	**$73,680**	**$77,680**	**Total for New Tractor**
Total Tax Savings	**7.9%**	**2.9%**	**Total Tax Savings**

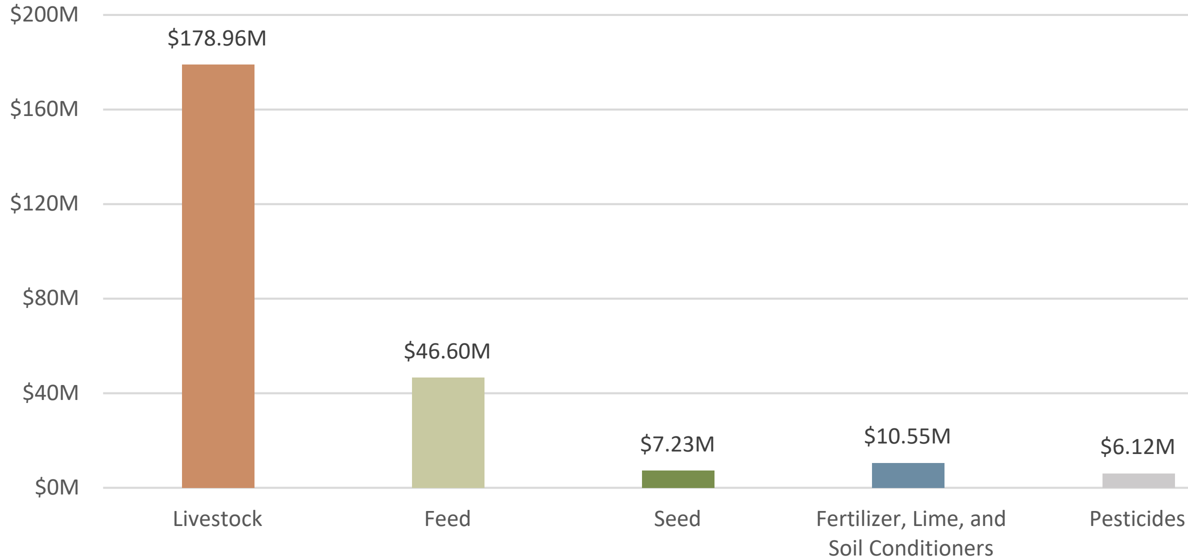
Source: Office of the State Auditor analysis of state and local government tax rates.

Additionally, Colorado's home rule cities and counties, established under Article XX of the Colorado Constitution, that collect their own sales taxes are *not* required to conform to any of the State's tax policies, including the Agricultural Exemptions. We looked at home rule cities in Colorado's 20 counties with the most farm land, and found they vary greatly in terms of which of the Agricultural Exemptions they offer. For example, Craig, Sterling, and Windsor have adopted all of the Agricultural Exemptions, whereas many larger Front Range cities, including Colorado Springs, Greeley, and Thornton, have adopted few, if any, of the exemptions.

We estimate that the Agricultural Sales Tax Exemptions provide more than $200 million in annual tax savings to Colorado's agricultural producers.

- **Agricultural Inputs Exemptions**—We estimate that agricultural producers received at least $249.5 million in tax savings from the exemptions in 2021. Exhibit 2 shows the estimated revenue impact by agricultural input type.

Exhibit 2
Estimated Revenue Impact of Agricultural Inputs Exemptions in Tax Year 2021



Source: Office of the State Auditor analysis of USDA data.

We used USDA statistical reports for our estimate, which provide estimated expenses for inputs purchased by Colorado farmers and the value of livestock sales by Colorado producers. However, these data have several limitations that likely impact the accuracy of our estimate. First, the USDA data set that we used does not include data for all the agricultural inputs exempt from Colorado sales tax, so it is possible that the actual revenue impact to the State and corresponding tax savings to agricultural producers is greater than $249.5 million. Specifically, the USDA data do not include data on agricultural compounds, semen for agricultural or ranching purposes, fish for stocking, or orchard trees. Second, we used USDA data on cash receipts for meat animals sold by Colorado producers in our estimate for the livestock exemption, which likely includes some sales made to out-of-state purchasers who would not be subject to sales tax regardless of the exemptions. We attempted to account for livestock sales to out-of-state consumers by subtracting exports of live farm animals from Colorado producers' cash receipts of meat animals; however, it is possible this does not account for all sales of livestock to out-of-state consumers. It is also possible that our revenue impact estimate of the Livestock Exemption (based on USDA data) double counts some transactions and thus overestimates the revenue impact. This is because we included in our estimate both expenses reported by Colorado producers who purchased livestock as well as cash receipts from sales of livestock by Colorado producers. To the extent that a Colorado producer purchased livestock from another Colorado producer, that transaction would be reflected in both the expenses of the purchaser and the cash receipts of the seller. However, we lacked data on how many transactions were between in-state sellers.

When we evaluated the Agricultural Inputs Exemptions in 2019, these exemptions were not itemized on the Retail Sales Tax Return. At that time, we estimated the revenue impact using USDA data, and found that it was likely around $231.2 million in 2017. In 2020, the Department amended its Retail Sales Tax Return so that the Agricultural Inputs Exemptions are reported on their own line on the return, and the Department is now able to extract that data from the returns. Most of the Agricultural Input Exemptions are reported in aggregate on a line for "Exempt agricultural sales, not including farm and dairy equipment" (Schedule A, Line 10). According to Department data, the State revenue impact of the Agricultural Inputs Exemptions was $20.9 million in 2021 based on amounts reported on the Retail Sales Tax Returns; this amount also includes the Farm Closeout Sales Exemption, which we reported on in May 2023, but we think that it is a relatively small portion of the total amount. However, it is likely that the Department's data significantly underreports the actual revenue impact to the State and corresponding tax savings to agricultural producers of the Agricultural Inputs Exemption. Our estimates for 2017 and 2021 are much higher than the revenue impact reported by the Department for 2021 due to several factors: (1) since the reporting line for the exemptions on the Retail Sales Tax Return changed in 2020, some retailers may not have realized the return was changed and may still be reporting the Agricultural Inputs Exemptions on the "Other Exemptions" line of the return; (2) if a vendor only makes exempt sales of commodities, they are not required to file a sales tax return and therefore, those exempt sales would not be reported to the Department on any forms; and (3) the agricultural items in the USDA data do not align exactly with the items covered by Colorado's exemptions.

- **Farm and Equipment and Parts Exemption**—According to Department data, the State revenue impact of the Farm Equipment and Parts Exemption was about $16.8 million in 2021 based on amounts reported on the Retail Sales Tax Returns. Exempt sales of farm and dairy equipment are reported on a separate line of the Retail Sales Tax Return (Schedule B, Line 4).

- **Special Fuel for Farm Vehicles Exemption**—According to data from the U.S. Energy Information Administration (EIA), in 2020, Colorado farmers spent approximately $66.7 million on diesel fuel, which translates into a state revenue loss and corresponding savings by farmers of approximately $1.9 million. Although this exemption is reported on the Retail Sales Tax Return as well ("Sales of gasoline, dyed diesel, and other exempt fuels," Schedule A, Line 5), we based our estimate on EIA data because the exemption is reported on the same line of the return with three other fuel exemptions—gasoline, special fuel used on State highways, and aviation gasoline—and we were unable to determine the amount reported just for the Special Fuel for Farm Vehicles Exemption. In 2021, the total State revenue impact for all the exemptions reported on that line was about $370.4 million. However, it is likely that the majority of that amount is attributable to the other exemptions reported on that line.

The Agricultural Exemptions might help keep Colorado farmers competitive with farmers in other states. All 44 other states that impose a retail sales or similar tax provide exemptions for items used by the agricultural sector, although the types of items exempted and their administration vary. We reviewed the specific exemptions available in neighboring states and Texas, which we included in our analysis because stakeholders with whom we spoke indicated that many agricultural goods used or produced in Colorado are purchased from or sold to Texas. Exhibit 3 illustrates that while there are some differences between these states regarding the exemption of some items, most agricultural inputs are not subject to sales tax in most of the states we reviewed. Like Colorado, most of these states have additional requirements for claiming the exemptions, such as requiring the purchaser to meet the definition of "farmer" and use the items purchased for an agricultural purpose.

Exhibit 3
Agricultural Sales & Use Tax Exemptions of Colorado's Neighbor States with National Agricultural Sales Ranking

Exemption	Colorado[1]	Nebraska (#3)	Texas (#4)	Kansas (#7)	Oklahoma (#22)	Arizona (#31)	New Mexico (#34)	Utah (#37)	Wyoming (#38)
Agricultural Machinery & Equipment	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
Livestock	Exempt	Exempt	Exempt	Exempt	In certain circumstances	Exempt	Exempt	Exempt	Nontaxable
Poultry	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Nontaxable
Livestock Bedding	Exempt	Taxable	Exempt	Taxable	Exempt	Taxable	Taxable	Exempt	Exempt
Animal Feed	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Nontaxable
Antibiotics, Medicines & Vaccines	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	In certain circumstances	Exempt	Taxable
Growth Promotants	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	In certain circumstances	Taxable
Semen	Exempt	Exempt	Exempt	Exempt	Exempt	No guidance	Exempt	No guidance	Taxable
Fertilizers	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
Pesticides	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	In certain circumstances	Exempt
Energy & Fuel	Exempt	Nontaxable	Exempt	Exempt	Exempt	Taxable	Taxable	Exempt	Exempt

Source: Office of the State Auditor analysis of Bloomberg Industry Group data on U.S. state tax policies and U.S. Department of Agriculture data on agricultural commodity cash receipts.

[1] Colorado ranks 20th in agricultural sales among states.

Policy Considerations

We did not identify any policy considerations for the Agricultural Exemptions. In our previous evaluation of the Agricultural Inputs Exemptions released January 2019, we included the policy consideration that the General Assembly may want to review and clarify statutes specifying which agricultural inputs are exempt. Specifically, we stated that the General Assembly may consider clarifying whether the following agricultural inputs were intended to be exempt from sales and use tax: 1) fertilizers; 2) soil conditioners, plant amendments, plant growth regulators, mulches, compost, and manure; 3) fish for non-stocking purposes (as opposed to fish sold for stocking purposes, which are explicitly exempted); and 4) embryos/fish eggs. In 2019, with House Bill 19-1329, the General Assembly added explicit exemptions for fertilizer and spray adjuvants for use in agricultural commodity production. The General Assembly did not take any legislative action to clarify whether the other three agricultural inputs are exempt from sales and use taxes.

OFFICE OF THE STATE AUDITOR

State Auditor	**Kerri L. Hunter, CPA, CFE**
Deputy State Auditor	**Michelle Colin, JD**
Evaluation Managers	**Trey Standley, JD** **James Taurman, MPA**
Evaluation Supervisor	**Kim Tinnell**
Evaluation Team	**Lily Welborn**

OFFICE OF THE STATE AUDITOR

C O L O R A D O

Working to improve government for the people of Colorado.