AGRICULTURAL INPUTS SALES TAX EXEMPTIONS

EVALUATION SUMMARY

JANUARY 2019
2019-TE4

THESE EVALUATIONS WILL BE INCLUDED IN COMPILATION REPORT SEPTEMBER 2019

	Livestock Exemption	Feed for Livestock, Seeds, and Orchard Trees Exemption	Bedding for Livestock Exemption	Fish for Stocking Exemption	Agricultural Compounds Exemption	Pesticides Exemption
Year enacted	1943	1945	1961	1970	1999	1999
Repeal/ Expiration date	None	None	None	None	None	None
Revenue impact	$231.2 million (Calendar Year 2017 combined)					
Number of Taxpayers	33,800 (combined)					
Average taxpayer benefit	$6,838 per farmer/rancher (combined) $7,035 per pond/lake owner (combined)					
Is it meeting its purpose?	Yes	Yes	Yes	Yes	Yes	Yes

WHAT DO THESE TAX EXPENDITURES DO?

Sales of livestock (including poultry), livestock feed, seeds, orchard trees, livestock bedding, pesticides, and agricultural compounds are exempt from sales and use tax when made by agricultural producers. Sales of live fish for stocking lakes and ponds are also exempt.

WHAT DID THE EVALUATION FIND?

We determined that the exemptions are likely meeting their purposes.

WHAT IS THE PURPOSE OF THESE TAX EXPENDITURES?

Statute does not directly state a purpose for the Agricultural Inputs Exemptions. We inferred the following purposes:

- The Agricultural Inputs Exemptions ensure that the sales tax is only applied to purchases made by the final consumer, which ensures even tax treatment, helps reduce double taxation/tax pyramiding, maintains fair competition among businesses, and promotes transparency in the tax system.
- The Pesticides Exemption additionally aligns the tax treatment of pesticides with

Eliminating them would result in an increased cost to the agricultural sector.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

The General Assembly may want to consider clarifying whether sales of several agricultural inputs, including fertilizer, soil conditioners, fish for non-stocking purposes, and animal embryos should be covered by the exemptions.

that of neighboring states where pesticides are exempt from sales tax.

AGRICULTURAL INPUTS SALES TAX EXEMPTIONS

EVALUATION RESULTS

WHAT ARE THESE TAX EXPENDITURES?

This evaluation covers several sales and use tax exemptions for items agricultural producers commonly purchase, which together exempt most inputs to agricultural operations from state sales and use tax. For the purposes of this report, we have included aquaculture, the process of raising fish for commercial sale, within our use of the term "agriculture." EXHIBIT 1.1 provides information about each of these exemptions, which we refer to collectively as the Agricultural Inputs Sales Tax Exemptions (Agricultural Inputs Exemptions).

EXHIBIT 1.1.
AGRICULTURAL INPUTS EXEMPTIONS

DESCRIPTION OF EXEMPTION	STATUTE	YEAR ENACTED
Livestock, including most animals used in agriculture	Section 39-26-716(3)(a) and (4)(a), C.R.S.	1943
Feed for livestock, seeds, and orchard trees	Section 39-26-716(4)(b), C.R.S.	1945
Straw and bedding for livestock	Section 39-26-716(4)(c)	1961
Fish for stocking purposes	Section 39-26-716(4)(a)	1970
Agricultural compounds, including fungicides, herbicides, insecticides, and spray adjuvants; semen for agricultural or ranching purposes; hormones, vaccines, and growth regulating compounds administered to livestock[1]	Sections 39-26-102(9)(a), (19)(c) and (d), and 39-26-104(1)(a), C.R.S.	1999
Pesticides[1]	Section 39-26-102(19)(d)	1999

SOURCE: Office of the State Auditor review of Colorado Revised Statutes.
[1] Between March 2010 and June 2011, sales tax was temporarily levied on the sale of pesticides and most agricultural compounds.

In addition, sales of agricultural inputs exempt from state sales tax are exempt from local sales taxes in statutory cities and counties, which have their local sales taxes collected by the State on their behalf. This is because statute [Section 29-2-105(1)(d)(I), C.R.S.] mandates that these local governments apply most of the State's sales tax exemptions, including all of the Agricultural Inputs Exemptions. Home-rule cities established under Article XX of the Colorado Constitution, which have the authority to set their own tax policies independent from the State, are not required to exempt these items from their local sales tax.

The Agricultural Inputs Exemptions are typically applied at the point of sale. Vendors selling covered items are responsible for determining whether the purchaser is a farmer or rancher, or if the item will be used for livestock and for exempting the purchaser from sales tax on the items. Vendors report the amount of exempt sales on the Department of Revenue's Sales Tax Return Form (Form DR 0100). Though vendors report most of the exemptions in aggregate on a line for "Other Exemptions, explanation required," the form contains a specific line for "Sales of agricultural compounds and pesticides," which vendors report separately.

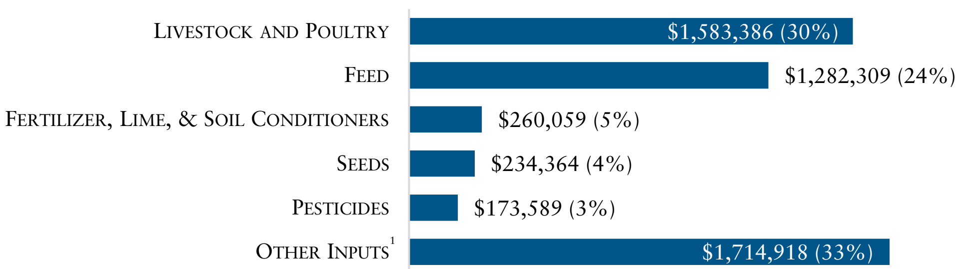
WHO ARE THE INTENDED BENEFICIARIES OF THE TAX EXPENDITURES?

Statute does not specifically identify the intended beneficiaries for the Agricultural Input Exemptions. We inferred, based on the statutory language, that the intended beneficiaries are Colorado farmers and ranchers who use these inputs to grow crops or raise livestock; meat, poultry, and livestock processing companies; and businesses and property owners who stock fish. We also inferred that consumers indirectly benefit from these exemptions since they likely reduce the effective tax rate on agricultural and aquacultural products they purchase.

In Calendar Year 2017, Colorado agricultural producers, who benefit from the Agricultural Inputs Exemptions, sold a combined total of $6.8 billion worth of livestock, livestock products, and crops. The biggest product categories by sales were cattle and calves ($3.4 billion), milk ($754 million), corn ($532 million), hay ($365 million), and wheat ($320 million), according to the U.S. Department of Agriculture. Private aquacultural producers in the state sold about $5 million in fish in Calendar Year 2013, the most recent year for which complete information was available.

As shown in EXHIBIT 1.2, the agricultural inputs covered by the Agricultural Inputs Exemptions (i.e., chemicals, seeds, feeds, livestock, and poultry) comprise about $3.5 billion, or 67 percent, of the total $5.2 billion in agricultural input costs for agricultural producers in Colorado in 2017.

EXHIBIT 1.2. MAJOR COLORADO AGRICULTURAL INPUT EXPENDITURES BY TOTAL AND PERCENT OF TOTAL (THOUSANDS), 2017



SOURCE: 2018 Colorado Agricultural Statistics Bulletin, U.S. Department of Agriculture.
[1]"Other Inputs" are not exempted by the Agricultural Inputs Exemptions and include fuel, machinery, repairs, labor costs, rent, and interest payments.

WHAT ARE THE PURPOSES OF THE TAX EXPENDITURES?

Statute does not directly state a purpose for the Agricultural Inputs Exemptions. Based on our review of statute, the legislative history, tax policy research, and other states' tax expenditure provisions, we inferred that the overarching purpose for all of the exemptions is to ensure that sales and use tax is only applied to purchases made by final consumers. Specifically, these types of agricultural exemptions, which are common structural provisions in states with sales and use tax, ensure that farmers and ranchers are not taxed on tangible goods they purchase which become part of the final products they produce. This is similar to the treatment of other industries that transform raw tangible goods into finished products and prevents uneven tax treatment for businesses based on the cost of their inputs.

The exemptions also ensure that the tax is only applied once, instead of at multiple points in an agricultural product's supply and distribution chain. This helps maintain fair competition among businesses and promotes transparency in the tax system by disclosing to consumers the full sales tax that is included in a product's cost, since it would be hidden from consumers if agricultural producers increased prices to account for sales taxes at earlier steps in the distribution chain. In addition, this prevents "tax pyramiding," which is essentially a form of double taxation where the effective retail sales tax rate paid by end consumers is higher than the nominal sales tax rate on the purchase price.

We also inferred a more specific purpose for the Pesticides Exemption. Specifically, based on the legislative declaration of House Bill 99-1381 that created this exemption, along with committee testimony, we inferred that its purpose was to ensure that Colorado pesticide dealers are not at a competitive disadvantage to dealers in bordering states where pesticides are exempt from sales tax. At the time that the bill was enacted, agricultural producers were traveling to other states to purchase pesticides and avoid sales tax. Agricultural producers would still have been liable for use tax in Colorado for these purchases, although some may not have been aware of this requirement or may have chosen not to comply.

ARE THE TAX EXPENDITURES MEETING THEIR PURPOSE AND WHAT PERFORMANCE MEASURES WERE USED TO MAKE THIS DETERMINATION?

We found that the Agricultural Inputs Exemptions are meeting their purposes because they result in agricultural inputs not being subject to sales and use tax, and in the case of pesticides, align Colorado's sales tax treatment of pesticides with that of neighboring states.

Statute does not provide quantifiable performance measures for the exemptions. Therefore, we created and applied the following performance measures to determine whether the exemptions are meeting their inferred purposes:

PERFORMANCE MEASURE #1: *To what extent do the Agricultural Inputs Exemptions exempt the covered agricultural inputs from Colorado's sales and use tax?*

RESULT: We determined that the majority of agricultural input sales are likely being exempted from sales and use tax as intended. Because most of the exemptions are reported in aggregate on the "other exemptions" line of the Department of Revenue's Retail Sales Tax Return (Form DR 0100), we could not determine the extent to which most of the exemptions are applied to eligible sales. However, the Department of Revenue's Retail Sales Tax reports and the stakeholders we contacted indicate that the exemptions are widely used. Specifically, the Department of Revenue's Retail Sales Tax Reports from Calendar Year 2015 (the most recent year that the reports were available) show that businesses in the "Agricultural, forestry, and fisheries" sector, a sector that likely makes many sales that are covered by the exemptions, reported about $501 million in retail sales and applied exemptions to $414 million (83 percent) of those sales. In addition, the agricultural vendors we contacted were aware of the exemptions and indicated that they are commonly applied.

PERFORMANCE MEASURE #2: *Did the Pesticides Exemption effectively align the tax treatment of pesticides with that of neighboring states and therefore, decrease the incentive for agricultural producers to purchase pesticides from out-of-state vendors?*

RESULT: We found that six of the seven states neighboring Colorado do not impose a sales tax on pesticides. As a result, Colorado treats pesticides similarly to other states in the region, which likely reduces the motivation of agricultural producers to travel across state lines to purchase pesticides free of sales tax. Further, all four of the pesticide dealers we spoke to were knowledgeable about the Pesticides Exemption and how to apply it. Two of the dealers also mentioned that before the Pesticide Exemption was enacted in 1999, Colorado agricultural producers would often purchase pesticides from neighboring states, particularly if they lived near the border, but that they are no longer aware of this occurring.

WHAT ARE THE ECONOMIC COSTS AND BENEFITS OF THE TAX EXPENDITURES?

We estimated a total state revenue impact of $231.2 million and a total local revenue impact of $143.5 million due to the Agricultural Inputs Exemptions in Calendar Year 2017, with an equal amount saved by Colorado agricultural producers. EXHIBIT 1.3 shows our estimates of the revenue impact for the inputs included in the exemptions and how many taxpayers are claiming exemptions for each.

EXHIBIT 1.3.
ESTIMATE OF STATE AND LOCAL REVENUE IMPACT FROM ITEMS INCLUDED IN THE AGRICULTURAL INPUTS EXEMPTIONS
TAX YEAR 2017

EXEMPT ITEM	TOTAL COLORADO SALES (IN MILLIONS)	STATE REVENUE IMPACT (IN MILLIONS)	LOCAL REVENUE IMPACT (IN MILLIONS)	TOTAL TAXPAYERS
Livestock	$5,610.6	$162.7	$101.0	15,474
Livestock Feed	$1,764.7	$51.2	$31.8	20,302
Seeds and Orchard Trees	$201.1	$5.8	$3.6	8,671
Livestock Bedding	Could not determine	Could not determine	Could not determine	13,268
Agricultural Compounds and Pesticides	$393.0	$11.4	$7.1	11,085
Fish for Stocking	$4.0	$0.1	<$0.1	16
TOTAL	$7,973.4	$231.2	$143.5	33,800[1]

SOURCE: Office of the State Auditor analysis of data from the U.S. Department of Agriculture, Colorado Department of Agriculture, and Colorado State University.
[1]Total does not sum due to some taxpayers claiming exemptions for multiple items. Estimated total taxpayers is equivalent to the number of farms and ranches in Colorado.

Our methodology for estimating these revenue impacts varied, but primarily relied on data from the U.S. Department of Agriculture as follows:

We calculated the value of most of these exemptions using the 2012 Agricultural Census (the most recently-published version at the time of publication), then scaled this amount to 2017 figures using the average rate of growth/decline in the value of overall sales in each category, according to data from the Colorado Agricultural Statistics Bulletin. In addition, we calculated the number of taxpayers claiming these exemptions by using a similar method to scale the figures based on the decline in the number of farms and ranches in Colorado. However, since the Agricultural Census' production expenses categories do not exactly line up with these inputs, we made adjustments to some of these values. For example, the census has a category that estimates the amount of seeds, plants, vines, and trees that Colorado agricultural producers purchase. Since Department of Revenue guidance does not exempt vines from sales and use tax, we reduced this amount by 10 percent in order to arrive at our revenue estimate for seeds and orchard trees.

For the Fish Stocking Exemption, we used the 2013 Census of Aquaculture, which estimated the sales figures for food and sport fish producers, since aquaculture stakeholders indicated that these were likely the producers who sold live fish for stocking purposes. For our revenue estimate of the Agricultural Compounds and Pesticides Exemptions, which are the only Agricultural Inputs Exemptions tracked separately by the Department of Revenue, we used figures from the Department of Revenue's 2018 Tax Profile & Expenditure Report.

We estimated the local revenue impact by multiplying the average population-weighted local tax rate for state collected local governments of 1.8 percent by the estimated revenue amounts for each input shown above.

WHAT IMPACT WOULD ELIMINATING THE TAX EXPENDITURES HAVE ON BENEFICIARIES?

Eliminating the Agricultural Inputs Exemptions would substantially increase taxes for Colorado agricultural producers. Without these exemptions, agricultural producers would have been subject to about

$374.7 million in additional taxes in Tax Year 2017. Unlike some businesses that could respond to tax increases by passing the tax on to consumers in the form of higher prices, because the price of most agricultural products is set by national and international markets, agricultural producers are typically "price takers" who would likely have to absorb the increased taxes, which would effectively decrease their income. Because most farms and ranches operate on relatively small profit margins (69 percent of farms and ranches have a profit margin of under 10 percent), if they had to absorb these additional taxes, their after tax income would decrease substantially. The U.S. Economic Research Service reported that Colorado farms had a total net income of about $884.4 million in 2017, including both net income from farming operations and other farm-related income. Based on these estimates, eliminating the Agricultural Input Exemptions would be equivalent to increasing agricultural producers' statewide income tax rate by an additional 42 percent, resulting in a total tax rate increase about 9 times greater than the current state income tax rate of 4.63 percent. This increase could be enough to impact the financial viability of agricultural producers, in particular farms and ranches with lower profit margins, and could therefore decrease the State's agricultural production.

In addition, eliminating the Agricultural Inputs Exemptions would result in some products being taxed multiple times as they move through their distribution chain and, to the extent that agricultural producers could pass the additional costs on to consumers, would increase the cost of agricultural products. Those agricultural industries with more transactions in their production chains would be most affected by this issue, which is sometimes referred to as "tax pyramiding." For example, as shown in EXHIBIT 1.4, if each sale of a beef cow were taxed, it would potentially increase the tax burden on the consumer and the price (assuming meat packers pass the additional cost on to beef wholesalers and retailers). As shown, the combined tax on a cow sold for $1,230 would be about $70, for an effective rate of about 5.7 percent, compared to the state sales tax rate of 2.9 percent.

**EXHIBIT 1.4,
HYPOTHETICAL SALE OF A BEEF COW IF THE LIVESTOCK EXEMPTION WERE ELIMINATED**

SALE 1–CALF-COW RANCHER TO LIVESTOCK DEALER

\+ State Sales Tax $5.80 = Total Paid by Livestock Dealer $205.80

SALE 2–LIVESTOCK DEALER TO BACKGROUNDER

\+ State Sales Tax $7.25 = Total Paid by Backgrounder $257.25

SALE 3–BACKGROUNDER TO FEEDLOT

\+ State Sales Tax $21.75 = Total Paid by Feedlot $771.75

SALE 4–FEEDLOT TO MEATPACKER

\+ State Sales Tax $35.67 = Total Paid by Meat Packer $1,265.67

**TOTAL STATE SALES TAX PAID
$70.47**

SOURCE: Office of the State Auditor analysis of state sales tax rates.

Finally, just as stakeholders told us that many farmers purchased their pesticides from dealers in other states before pesticides were exempt, it is likely that some agricultural producers would simply purchase their inputs outside of Colorado if these exemptions were eliminated. This effect would be more significant for producers who live near a Colorado border, and much of Colorado's farmland and orchard groves are concentrated near Colorado's eastern and western borders.

ARE THERE SIMILAR TAX EXPENDITURES IN OTHER STATES OR OTHER TAX EXPENDITURES OR PROGRAMS WITH A SIMILAR PURPOSE IN THE STATE?

We reviewed the tax codes of the other 44 states and the District of Columbia that levy a sales tax, and found that the items covered by Colorado's Agricultural Inputs Exemptions are commonly exempted by other states, though there is variation regarding the specific items covered. For example, all 44 states and the District of Columbia exempt most sales of feed and seeds, but fewer exempt livestock sales (41 states), agricultural compounds (40 states), livestock bedding (25 states), orchard trees (13 states), and fish used in aquaculture operations (8 states).

We did not identify other tax expenditures with a similar purpose available in Colorado.

WHAT DATA CONSTRAINTS IMPACTED OUR ABILITY TO EVALUATE THE TAX EXPENDITURES?

Because the Department of Revenue's Retail Sales Tax Return (Form DR 0100) does not have a separate line where vendors can report the value of their exempt sales of livestock, livestock feed, livestock bedding, fish stocking, seeds, and orchard trees, they must lump together the value of these and many other exemptions they claim in the "Other Exemptions, explanation required" line. Therefore, there is no data on how much Colorado businesses are claiming for these exemptions. This data would allow us to provide a more accurate and reliable estimate of the revenue impact to the State. Therefore, if the General Assembly determined that a more accurate figure is necessary, it could direct the Department of Revenue to add additional reporting lines on its Retail Sales Tax Return and make changes in GenTax, its tax processing and information system, to capture and pull this additional information. However, according to the Department of Revenue, this type of change would require additional resources to develop the form and complete the necessary programming in GenTax (see the Tax Expenditures Overview Section of the Office of the State Auditor's *September 2018 Tax Expenditures Compilation Report* for additional details on the limitations of Department of Revenue data and the potential costs of addressing the limitations).

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

THE GENERAL ASSEMBLY MAY WANT TO REVIEW AND CLARIFY STATUTES SPECIFYING WHICH AGRICULTURAL INPUTS ARE EXEMPT. Specifically, based on our review of statute, we identified several types of inputs that are similar to those that are currently exempted from sales tax by the Agricultural Inputs Exemptions, but for which statute does not clearly state an exemption.

- **FERTILIZER.** Although Section 39-26-102(19)(c) C.R.S., specifies that sales of "agricultural compounds" are wholesale sales, which are not subject to sales and use tax, it does not specifically list fertilizers among a list of items included under the definition of agricultural compounds. Until 2014, Department of Revenue regulations and taxpayer guidance treated fertilizer used for agricultural purposes as exempt and 89 percent of respondents to our 2017-2018 survey of Colorado agricultural producers indicated that they typically do not pay sales tax on fertilizer purchases. However, the Department removed its rules concerning the sales tax treatment of fertilizer in 2014 and as of January 2019, the Department no longer provided taxpayer guidance on applying the Agricultural Compounds and Pesticides Exemption. Thus, it may no longer be clear to taxpayers whether fertilizers are intended to be exempt from sales and use tax and the General Assembly may want to amend statute to clarify this.

- **SOIL CONDITIONERS, PLANT AMENDMENTS, PLANT GROWTH REGULATORS, MULCHES, COMPOST, AND MANURE.** These are all commonly-used inputs into farming operations to improve the physical or chemical condition of the soil, preserve or facilitate seed/plant growth, or improve root development and other desirable plant characteristics. Though they appear to have a similar purpose as many agricultural inputs that fall within the Agricultural Inputs Exemptions, they are not included within the definition of any of the covered items and are therefore, not exempt from sales tax. Our review of exemptions in the seven states bordering Colorado, indicates that three directly exempt one or more of these types of inputs from sales or gross receipts tax.

- **AQUACULTURE.** Although the Department of Revenue has not issued official guidance, staff told us that their understanding was that the Agricultural Inputs Exemptions for livestock, livestock feed, and agricultural compounds and pesticides (Section 39-26-716(4)(a), C.R.S.) do not apply to sales of fish for non-stocking purposes (as opposed to fish sold for stocking purposes, which are explicitly exempted), since these fish are not explicitly defined as "livestock." However, aquaculture stakeholders that we interviewed indicated that statute could be interpreted to include fish within the statutory definition of livestock, which is defined as "cattle, horses, mules, burros, sheep, lambs, poultry, swine, ostrich, llama, alpaca, and goats, regardless of use, and any other animal which is raised primarily for food, fiber, or hide production" [Section 39-26-102(5.5) C.R.S]. Therefore, the General Assembly may want to clarify whether sales of fish, other than those used for stocking purposes, should be included within the exemption.

- **EMBRYOS/FISH EGGS.** Livestock owners looking to pass on the genetics of an animal or grow their livestock numbers may use artificial insemination instead of natural mating. With artificial insemination, livestock owners have the option of conducting embryo transfers, in which semen is artificially inseminated into the ovulating female animal whose genetic stock is desired, then the embryos are flushed out and inserted into surrogate females. Sales of the semen are exempt from sales and use tax under Section 39-26-102(19)(c), C.R.S, but it is not clear if embryo sales are also exempt. Similarly, many aquaculture producers typically purchase fertilized fish eggs as opposed to live fish to use in their operations and it is not clear whether such purchases should be treated as exempt from sales tax.