HF1150 - 0 - Perfluoroalkyl or Polyfluoroalkyl Prohibited

Chief Author: **Rick Hansen**
Commitee: **Agriculture Finance And Policy**
Date Completed: **2/16/2023 2:35:06 PM**
Agency: Agriculture Dept

State Fiscal Impact	Yes	No
Expenditures	X	
Fee/Departmental Earnings	X	
Tax Revenue		X
Information Technology	X	

Local Fiscal Impact		X

This table shows direct impact to state government only. Local government impact, if any, is discussed in the narrative.
Reductions shown in the parentheses.

State Cost (Savings)		Biennium		Biennium	
Dollars in Thousands	**FY2023**	**FY2024**	**FY2025**	**FY2026**	**FY2027**
General Fund	-	1,126	562	562	562
Agriculture Fund	-	803	803	803	803
Total	**-**	**1,929**	**1,365**	**1,365**	**1,365**
Biennial Total			**3,294**		**2,730**

Full Time Equivalent Positions (FTE)		Biennium		Biennium	
	FY2023	**FY2024**	**FY2025**	**FY2026**	**FY2027**
General Fund	-	4.05	3.8	3.8	3.8
Agriculture Fund	-	-	-	-	-
Total	**-**	**4.05**	**3.8**	**3.8**	**3.8**

LBO Analyst's Comment

I have reviewed this fiscal note for reasonableness of content and consistency with the LBO's Uniform Standards and Procedures.

LBO Signature: Chloe Burns **Date:** 2/16/2023 2:35:06 PM
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State Cost (Savings) Calculation Details
This table shows direct impact to state government only. Local government impact, if any, is discussed in the narrative.
Reductions are shown in parentheses.
*Transfers In/Out and Absorbed Costs are only displayed when reported.

State Cost (Savings) = 1-2		Biennium		Biennium	
Dollars in Thousands	FY2023	FY2024	FY2025	FY2026	FY2027
General Fund	-	1,126	562	562	562
Agriculture Fund	-	803	803	803	803
Total	**-**	**1,929**	**1,365**	**1,365**	**1,365**
Biennial Total			**3,294**		**2,730**
1 - Expenditures, Absorbed Costs*, Transfers Out*					
General Fund	-	1,126	562	562	562
Agriculture Fund	-	-	-	-	-
Total	**-**	**1,126**	**562**	**562**	**562**
Biennial Total			**1,688**		**1,124**
2 - Revenues, Transfers In*					
General Fund	-	-	-	-	-
Agriculture Fund	-	(803)	(803)	(803)	(803)
Total	**-**	**(803)**	**(803)**	**(803)**	**(803)**
Biennial Total			**(1,606)**		**(1,606)**

Bill Description

A bill for an act relating to agriculture; prohibiting registration of pesticides containing a perfluoroalkyl or polyfluoroalkyl substance; proposing coding for new law in Minnesota Statutes, chapter 18B.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA: [18B.117] REGISTRATION PROHIBITED.

This bill amends Minnesota Statute 2018, Section 18B.26 to prohibit the registration of products containing a perfluoroalkyl or polyfluoroalkyl substance as an inert ingredient or other intentionally added substance.

margin-left:.5in'>Section 1. [18B.117] REGISTRATION PROHIBITED.margin-left:.5in'>The commissioner must not register under section 18B.26 a pesticide product that contains a perfluoroalkyl or polyfluoroalkyl substance as an inert ingredient or other intentionally added substance.

Assumptions

This bill does not offer a definition of a perfluoroalkyl or polyfluoroalkyl substance. The Office of Pollution Prevention and Toxics (OPPT) of the Environmental Protection Agency applies the following “working definition” when identifying PFAS on the TSCA Inventory: a structure that contains the unit R-CF2-CF(R') (R''), where R, R', and R'' do not equal "H" and the carbon-carbon bond is saturated (note: branching, heteroatoms, and cyclic structures are included). However, for the purposes of this fiscal note, MDA is assuming that the definition of perfluoroalkyl or polyfluoroalkyl substance would be “a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom” as defined in the Minn.Stat. 325F.072.

Pesticides contain active ingredients and inert ingredients. Active ingredients are the chemicals that control the target pest while inert ingredients are included in the pesticide but do not act directly to control the pest. We are assuming that “other intentionally added substance,” as written in this bill, would include active ingredients. Currently, Minnesota pesticide registrations require the disclosure of active ingredients in pesticide products, and the “total percentage of all inert ingredients,” but not what the inert ingredients are.

At this time, MDA is unable to determine the exact number of pesticide active ingredients that would be considered a perfluoroalkyl or polyfluoroalkyl substance. Determining the exact number would require reviewing the chemical structure of all registered active ingredients (approximately 970) and inert ingredients used in Minnesota. To estimate an

approximate number of active ingredients that may be considered a perfluoroalkyl or polyfluoroalkyl substance and prohibited by this bill, we compared a list of active ingredients registered in Minnesota to a database of fluorinated agrochemicals generated by Ogawa et al. (2020) and reviewed the structures of registered fluorinated active ingredients. Of the approximately 970 active ingredients registered for use in Minnesota about 85 would be considered a perfluoroalkyl or polyfluoroalkyl substance based on the definition in the Minn. Stat. 325F.072. These 85 active ingredients are used in approximately 2,050 different pesticide products that would be canceled if this bill is passed. However, if the EPA's definition is used, less than 5 active ingredients (approximately 10 products) registered in Minnesota would be considered a perfluoroalkyl or polyfluoroalkyl substance. It is important to note that the database from Ogawa et al. (2020) is not a comprehensive list of all fluorinated pesticides (e.g., disinfectants and other non-agricultural pesticides are excluded); therefore, there may be substantially more active ingredients that would be considered a perfluoroalkyl or polyfluoroalkyl substance under both the Minn. Stat. 325F.072 and EPA's definitions.

Currently, MDA is unable to determine how many products may contain a perfluoroalkyl or polyfluoroalkyl substance as an inert ingredient. There are over 5,000 inert ingredients that are approved by the EPA for use in pesticides. The EPA has said there are no inert ingredients in registered products that would be considered PFAS under their working definition, however it is not clear how many inert ingredients would be considered a perfluoroalkyl or polyfluoroalkyl substance under the Minn. Stat. 325F.072 definition. Given that pesticide registrants are not required to disclose inert ingredients in pesticide products to the Department, it is not possible to determine how many pesticide products may contain a perfluoroalkyl or polyfluoroalkyl substance as an inert ingredient at this time. In addition to the estimated 2,050 pesticide products mentioned above, it is possible that a significant number of additional pesticide products could also be cancelled for use in Minnesota based on their inert ingredients. To estimate the exact number of pesticide products impacted by this bill the MDA would require information on inert ingredients be submitted as a condition of registration for all pesticide products. However, for the purposes of this fiscal note, MDA assumes that registrants would not be required to submit this proprietary information yearly but rather would certify on the registration form that their product does not contain perfluoroalkyl or polyfluoroalkyl substances annually. For further context, in 2021 there were approximately 14,000 pesticide products registered in Minnesota, this bill has the potential to cancel the use of at least 14% of pesticide products registered in Minnesota.

The cancellation of registration means products cannot be sold or distributed in Minnesota. Once a pesticide product has been cancelled, the registrant will have 60 days to recall the products from distribution in to or within the state (Minn. Stat. 18B.26 subd 6). In accordance with Minn. Stat. 18B.26 subd 1(c), applicators who purchased these products prior to cancellation can continue to use these products in accordance with label directions for a period of two years.

Many of the pesticide products that would be cancelled through this bill are widely used to control agricultural and non-agricultural pests and weeds in Minnesota (e.g., bifenthrin, lambda-cyhalothrin, trifloxystrobin, and fomesafen). In 2021, approximately 1.7 million pounds of the 85 aforementioned active ingredients were sold. This change can have significant effects on agriculture and other industries and individuals that use pesticides for pest management, possibly causing millions of dollars in losses. Losing these products can result in high agricultural yield losses from difficult to control weeds and pests and increased nuisance pests in and around homes and buildings. The loss of so many pesticide products can change patterns of pesticide use, which may have unknown consequences on agricultural productivity, human health, and the environment in Minnesota. Because many of the 85 active ingredients are non-systemic insecticides, a greater risk to pollinators and other non-target organisms could result from this change if systemic insecticides like neonicotinoids are chosen as an alternative. Additionally, loss of so many active ingredients may have a significant effect on the resistance management for pests and weeds. However, it would require a detailed assessment of pest management alternatives and preferences of pesticide users to try to assess potential changes.

It is assumed that after such a large number of pesticide products are canceled, there would be an increase in pesticides needing to be properly disposed of. The MDA assumes that many end users with these products would use them up over the 2-year grace period, and the registrants would move the unsold canceled products to other states for sale, but there may still be a significant amount of pesticides that needs to be properly disposed of. For the purposes of this fiscal note, we assume that the Department will be able to absorb the disposal costs. However, it is not possible to determine the total quantity of pesticides needing to be disposed of and thus the Department is unable to determine the potential increase in cost for disposing of the pesticides.

Expenditure and/or Revenue Formula

The Department assumes the registration of pesticide products containing perfluoroalkyl or polyfluoroalkyl substances will be prohibited January 1, 2024 (the deadline for the annual renewal of registration for pesticide products). However, it is anticipated that implementing these requirements will be challenging. It may take some time for some companies, particularly the smaller companies with only a few specialized products, to obtain and submit the required information. In the interim, their products would not be registered and would need to be removed from the marketplace.

It is assumed the Department will need 3.5 regulatory program FTEs to implement this bill.

· 1.0 FTE (Ag Consultant) to register products, update registration forms and processes, and educate registrants about the perfluoroalkyl or polyfluoroalkyl substances ban to ensure proper disclosure compliance and assert no pesticide products that intentionally include perfluoroalkyl or polyfluoroalkyl substance are registered in Minnesota.

· 1.0 FTE (Research Scientist 2) to create and perform outreach to pesticide retailers and end-users about the ban and alternative pesticide options, and to screen and evaluate for the presence of perfluoroalkyl or polyfluoroalkyl substances in products during registration

· 1.5 FTE (Ag Consultant) for enforcement activities including collection of formulation samples during routine marketplace inspections. Marketplace inspections would be conducted with retailers to ensure the sale of pesticides containing intentionally added perfluoroalkyl or polyfluoroalkyl substances prohibited in the State are no longer present in the marketplace, and to enforce on violations.

It is assumed the Laboratory will initially need 0.55 FTEs to establish capability and 0.3 FTEs ongoing to maintain capacity.

· 0.05 FTE (Environmental Analysis Supervisor) to provide supervision of the work performed.

· 0.5 FTE (FY24) and 0.25 FTE (FY25-27) (Research Scientist 2) to be responsible for validating/verifying the method in-house and providing on-going sample analysis.

It is assumed the MDA Laboratory will conduct perfluoroalkyl or polyfluoroalkyl substance analysis on pesticide samples submitted by PFMD. Approximately 20 samples per year will be analyzed. The MDA laboratory will analyze the samples using the EPA method for selected PFAS in Oily Matrix. Given this, in FY24 the MDA laboratory will need to develop the capability to run the EPA method on pesticide samples and purchase a new equipment for analysis. $530K is requested to purchase a Exploris Liquid Chromatography-Mass Spectrometer to perform the analysis. Sample analysis could begin in FY25.

The supply and repair/maintenance funds will establish a base capability and capacity of approximately 20 samples per year. If sample numbers exceed this capacity additional funds will be needed. These funds are used to maintain and repair equipment used to analyze submitted samples. In FY24 $5K will be needed for repairs and general maintenance. The new equipment purchased in FY24 will be under warranty until FY25. In FY25-FY27 $30K will be needed to include maintenance agreements for the equipment purchased in FY24. Additionally, in FY24-27 $18K will be needed each year to purchase supplies necessary for the analysis.

It is assumed that MNIT will need 150 hours for an LIS staff and 80 hours for an eRenewal staff in the first year for the changing of registration forms and tracking details in LIS and eRenewal systems.

It is assumed that MDA will lose revenue due to this registration prohibition. At this time, we are unable to determine the exact number of pesticide active ingredients or pesticide products that would be cancelled. Assuming the approximately 2,050 pesticide products noted above were to be prohibited, the Department would lose approximately $717,500 annually in renewal fees ($350/year/product). The gross sales fees for those products in 2021 were approximately $854,000 (approximately 20% of all gross sales fees from pesticides sold in Minnesota). It is possible pesticide users would choose to buy a different pesticide for which there would be a sales fee, but for products where no pesticide substitute was used the Department would lose that revenue. It is assumed that 10% of the $854,000 sales fees would be lost in revenue which equals $85,400 in lost revenue. The total annual lost revenue would be $802,900.

Expenditure (Actual Dollars)	Fund	Amount	FY 2024	FY 2025	FY 2026	FY 2027
Salary & Fringe:	1000		FTE	FTE	FTE	FTE
PTU Research Scientist		127,000	1	1	1	1
		Subtotal	127,000	127,000	127,000	127,000
Agricultural Consultants		127,000	2.5	2.5	2.5	2.5
		Subtotal	317,500	317,500	317,500	317,500
Lab Research Scientist		112,000	0.5	0.25	0.25	0.25
		Subtotal	56,000	28,000	28,000	28,000
Lab Environmental Analysis Supervisor		122,000	0.05	0.05	0.05	0.05
		Subtotal	6,100	6,100	6,100	6,100
LIS MNIT staff			Hours			
		80	150	NA	NA	NA
		Subtotal	12,000	NA	NA	NA
eRenewal MNIT staff			Hours			
		80	80	NA	NA	NA
		Subtotal	6,400	NA	NA	NA
Information Technology:	1000					
IT enterprise costs-laptop, phone, network			9,000	9,000	9,000	9,000
IT project/application costs			12,800	0	0	0
		Subtotal	21,800	9,000	9,000	9,000
Other Operating Costs:	1000					
Travel			19,000	19,000	19,000	19,000
Inspection and enforcement supplies			2,500	2,500	2,500	2,500
Lab non-payroll costs (communication, other)			5,000	5,000	5,000	5,000
Lab supplies			18,000	18,000	18,000	18,000
Lab repairs/maintenance			5,000	30,000	30,000	30,000
Capital equipment (Exploris)			530,000			
		Subtotal	579,500	74,500	74,500	74,500
Expenditure		Total	1,126,300	562,100	562,100	562,100

Long-Term Fiscal Considerations

The staff requirements to implement this bill would be ongoing and long-term. The revenue loss is also expected to be long-term, though the total amount of revenue loss is hard to determine because we are unsure of how many products would be cancelled and how pesticide use choices for the cancelled products may change.

Local Fiscal Impact

There likely will be additional costs for pesticide users who will lose the ability to use products that are important for their home, business, crop or other need. In some cases, alternative products might be unavailable, more expensive, less effective or pose an increased human health or environmental risk. These costs and risks could be significant for some users. However, MDA is unable to estimate these costs without significant additional information regarding cancelled products and potential impacts from their loss, which would require a review of each product that would be cancelled.

References/Sources

Ogawa, Y., Tokunaga, E., Kobayashi, O., Hirai, K., & Shibata, N. (2020). Current contributions of organofluorine compounds to the agrochemical industry. Iscience, 23(9), 101467.

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