**** May 17, 2019

ELECTRONIC DELIVERY

Office of Pesticide Programs Docket

Environmental Protection Agency Docket Center (EPA/DC),

(28221T) 1200 Pennsylvania Ave. N.W.

Washington, DC 20460-0001

***Submitted via Federal eRulemaking Portal***

**Re: Response to the request from EPA for comments on the proposed interim decision for pymetrozine on vegetable crops. Docket Control Numbers: EPA-HQ-OPP-2013-0368**

The following comments are submitted on behalf of the National Potato Council (NPC). NPC represents the interests of the $4 billion U.S. potato industry. Processing and other value-added activities increase that amount dramatically beyond the farm gate. In total, potatoes are the largest specialty crop produced in the U.S. and pymetrozine is directly beneficial to that production.

**Importance of Accurate Modeling and Assumptions**

Our industry appreciates that EPA’s intention is to minimize risk to the public. However, we are concerned that the theoretical assumptions underlying EPA’s assessment do not accurately reflect the real-world use of the product. If acted upon to reduce the use of pymetrozine, these flaws will result in significant negative impacts to potato growers across the United States without minimizing actual risks to the public. There are significant benefits associated with pymetrozine. It would not be appropriate to restrict the use of the product to the point of essentially cancelling it on potatoes based on theoretical risks.

Instead, we believe that EPA can improve the theoretical risk assumptions from pymetrozine while maximizing the significant benefits associated with the use of this very valuable product. The US potato industry would like to work with the EPA to address these issues. In view of the real economic impacts that would come from Agency’s decisions involving pymetrozine, care should be taken so that reliable data is incorporated into all relevant decision-making processes.

Decisions concerning the potential effects of pymetrozine, including groundwater effects, should be based on the best scientific data and information available. EPA should not unduly rely on worst-case approaches, assumptions and modeling.

**Pests and Diseases Threatening Potato Production**

Aphids and psyllids are two of the most destructive insect pests of potatoes. Aphids vector a wide array of viral diseases, including potato leaf roll virus, the many strains of potato virus Y, and potato virus S. Potato psyllids vector a bacterium that causes a serious tuber defect called zebra chip. Collectively, these diseases are challenging for the U.S. potato industry and result in substantial costs.

Managing these diseases requires control of the insect vectors. There are no genetic resistance, significant biological controls, or other non-chemical control alternatives for management of these insect vectors of disease. In some places, such as southern Texas, potato psyllid has become resistant to several insecticides used for their control, including the neonictinoid class of insecticides. Everywhere psyllids are a pest of potatoes, there is significant concerns with development of resistance. If psyllids or aphids develop resistance to insecticides, such as the neonicotinoid class, insecticide usage will increase sharply. Aphids are a problem of potatoes across all of the United States and the potato psyllid is a problem in the western half of the U.S.

Control of these insect pests is essential to processed and fresh potato production and is even more critical for the production of seed potato (tubers used to generate potato plants). If insect-vectored viral diseases are not highly controlled in seed potato fields, those viruses will occur in subsequent production fields. If the virus load in seed potatoes is too high the lot will be rejected and cannot be sold. Once established, it is very difficult to control seed-borne viral outbreaks on table stock and processing fields.

Controlling aphids and potato psyllids in potato fields is simply a cornerstone of producing potatoes. The importance of managing viral diseases, and hence the vectors of those diseases, cannot be overstated.

**Use and Benefits of Pymetrozine**

Currently growers enjoy multiple registrations of insecticides that will control aphids and or psyllids. One of the more commonly used insecticides is pymetrozine (sold as Fulfill). Pymetrozine is commonly applied to seed potato produced in the U.S., and in regions that have aphids occurring in mixed assemblages with potato psyllid have more than 25% of acres treated at least once.

There are several reasons why growers select pymetrozine. Two of the most important are that pymetrozine is one the most effective aphidicides on the market and it acts very quickly to end the cessation of feeding by the insect pest. Rapid cessation of feeding is essential to stop transmission of insect vectored diseases.

Another benefit associated with this product is that it is the most selective insecticide registered on potatoes (meaning it will kill the target insect pest with no negative impact on beneficial organisms) and is a highly-favored product for growers that are using intensive IPM programs. A 2019 Washington State Potato Commission sponsored IPM intensive program will rely on pymetrozine for aphid and psyllid control.

The following is feedback by Robert Leiby, Agronomist, Pennsylvania Cooperative Potato Growers Inc., Harrisburg, Pa;

“Fulfill works well on colonizing late season aphids.  While we have several aphid control materials available, Fulfill is included in our IPM recommendations in the event colonizing aphids cause hot spots late in the growing season.   Some years hardly any pymetrozine is used when we see few aphids, but when outbreaks occur it is important for us to have these products available as a choice to reduce insecticide resistance development.”

**Alternatives to Pymetrozine**

There are several insecticidal alternatives to pymetrozine, but each of these products have some use restriction, spectrum of control limitations or other kind of issues that can in certain circumstances prevent them from being the best choice for a grower to use. For example, most growers use a Group 4 insecticide at planting, if they use such a product as a seed or in furrow treatment then no Group 4 products should be used as a foliar insecticide. This removes several insecticides as an option. If a grower has mixed assemblages of aphids and psyllid, which commonly occurs in the Western U.S., it limits the number of choices. If a grower wants a rapid cessation of feeding, it limits the number of choices growers have.

Another newly emerging issue is one of product supply. Increasingly, pesticide distribution channels are having extreme shortages of pesticides. Virtually every distributor of pesticides has a list of dozens of pesticides that are available on an allocated basis or simply not available. Insecticides that are alternatives to pymetrozine are included on the list of products that are in short supply or simply cannot be sourced.

Nowhere is the mixed assemblages of aphids and psyllids more critical than the Columbia Basin of Washington and Oregon and the Snake River Valley of Idaho. This area represents 55% of the U.S. potato production. Potato-producing regions east of the 100th meridian generally have one application on less than 20% of acres.

**Inaccurate Estimation of the Use of Pymetrozine**

The Pymetrozine Proposed Interim Registration Review Decision underestimates the amount and importance of the use of Fulfill on potatoes. Instead, a 2016 graph of the use of pymetrozine was generated by the US Geological Survey, (<https://water.usgs.gov/nawqa/pnsp/usage/maps/show_map.php?year=2016&map=PYMETROZINE&hilo=L>). It is relatively easy to separate out most of the pymetrozine use that is directed towards potatoes. The coloration for pymetrozine illustrate the intensity of use on potatoes in Washington, Oregon, Montana, Colorado, Minnesota, Wisconsin, Michigan and New York. The marks in Montana and Michigan are for seed production. The marks in Colorado overlap with potato production in the San Luis Valley. The marks in Washington line up perfectly with potato production in the Columbia Basin in WA. The marks in Oregon line up perfectly with the Columbia Basin, the Klamath Basin, the Redmond, Le Grande and Ontario potato growing regions of Oregon.

Recently, Adama has used Section 2ee of FIFRA to allow a lower rate of pymetrozine for control of potato psyllid which will increase use of the product, and therefore increase its benefits. It is expected that potato growers will use more pymetrozine than in the past.

States with smaller amounts of potatoes are often not mentioned in the letters of national scope. However it is important to understand in that states with limited production or limited use of Fulfill, the relative benefit of the product can be of substantial importance per grower. In both situations, use of pymetrozine is important.

**Inaccurate Assumptions Regarding Application of Pymetrozine**

In fresh and processed potatoes, nearly all pymetrozine is applied by air or chemigation. It is estimated that about 75% is applied by air. In seed production, about 25% is applied by ground and the rest is applied by chemigation and air. In processed and fresh potatoes, virtually no applications are made by ground once row closure occurs and nearly 100% of pymetrozine applications are made post row closure. In some situations, aerial application is the only option for applying the product.

Loss of aerial application of pymetrozine would significantly reduce the benefits associated with this product. EPA is focusing on aerial application as a higher risk method of application of pymetrozine as a risk due to this method of application. However, this assumption does not appear to be supported by the facts.

Aerial applications apply about 1.5 oz of pymetrozine active ingredient in 5 to 7 gallons of water per acre to a crop that is completely canopied-over, so virtually all of the product goes on and stays on the canopy rather than coming into contact with the soil. Therefore, aerial application would be the least-risky means of applying the product when it comes to contaminating groundwater.

**Inaccurate or Absent Data Regarding Groundwater Impact**

This disconnect between the actual use of the product and EPA’s assumptions surrounding groundwater again cause us to believe that some faulty assumptions were made in the modeling process. We are unaware of any detections of pymetrozine or its degradates in groundwater. So it seems EPA is taking an overly conservative approach by imposing restrictions that are tantamount to cancellation of a product based on modeling. The potato industry, the registrant, and EPA should work together to develop label language that would minimize risk from pymetrozine use that keep most of the benefits associated with the use of the product.

The Pymetrozine PID recommends prohibition of application if a soil has all three of the following characteristics: 1) sandy soil (i.e., any soil with > 60% sand, including sand, loamy sand, sandy loam, sandy clay loam, and sandy clay); 2) < 3 % organic matter; and 3) shallow depth to groundwater (<30 feet). Much of the potato growing regions of the Columbia Basin, Colorado and some other locations where pymetrozine is used has soil with greater than 60% sand, and virtually all of it has organic matter less than 3%.

**Unclear Information May Inadvertently Impact Product Use**

The third part of this restriction describes groundwater less than 30 feet in depth. If the concern is about drinking water, very little area where potatoes are grown has drinking water that is less than 30 feet from the surface, although there may be groundwater present at that depth. If the concern is about drinking water, then the restriction should say so and perhaps have a restriction for drinking water that is less than 30 feet from the surface.

The language is likely to cause many growers to believe they cannot use this product. This language is simply confusing and requires grower to make technical decisions beyond their area of expertise. Many growers raise potatoes on rented ground that may be some distance from their base of operations, and this would require them to make uninformed decisions based on limited information on whether they could use pymetrozine. We are concerned that growers would choose not to use this product out of fear of being out of compliance because they do not know the depth of ground water. Also in sandy, heavily-irrigated farm land, the ground water near the surface can fluctuate during the course of the year.

**Conclusion**

To date, there have been no detections of pymetrozine in groundwater where the product is used on potatoes. It would be inappropriate to not allow use of the product without some real evidence of an issue. Imposing restrictions that are tantamount to cancellation of a product based on modeling is too extreme. Considering the lack of factual evidence that pymetrozine could end up in the groundwater based on applications to potatoes and EPA’s recommendation to essentially end use of pymetrozine on potatoes, we strongly opposed the recommendation in EPA’s PID.

So for all the reasons above, the U.S. potato industry needs continued access to pymetrozine in a manner similar to the current label. If any additional information is needed or questions arise please do not hesitate to contact us. We would welcome being part of the dialogue involved in reregistering pymetrozine.

NPC appreciates your consideration of these comments.

Sincerely



Kam Quarles  
Chief Executive Officer  
National Potato Council