



**Office of Indiana  
State Chemist**



# Atrazine Interim Registration Decision

170<sup>th</sup> IPRB Meeting

August 9, 2022

-Dave Scott-

# EPA Seeks Public Comment on Additional Ecological Mitigation Measures for Atrazine

2016 atrazine ecological risk assessment, EPA determined that the scientifically derived concentration equivalent level of concern (CE-LOC) for atrazine, measured as a 60-day average, was 3.4 micrograms per liter ( $\mu\text{g/L}$ ).

This is the concentration of atrazine that, when exceeded, presents a greater than 50 percent chance of negatively affecting an aquatic environment.

The CE-LOC is based on effects to aquatic plant communities; however, by ensuring protection of primary producers, the CE-LOC is intended to also provide protection for the entire aquatic ecosystem, including fish, invertebrates and amphibians

# EPA Seeks Public Comment on Additional Ecological Mitigation Measures for Atrazine

October 2019, EPA released a memo entitled Regulatory Update on the [Registration Review of Atrazine](#), that announced a policy decision that an atrazine concentration of 15 µg/L as a 60-day average triggers required monitoring and/or mitigation to protect aquatic plant communities from atrazine runoff.

This policy decision did not supplant the scientifically derived CE-LOC of 3.4 µg/L. The currently proposed mitigations, if finalized, would supersede the October 2019 memo.

October 2020, EPA received a petition alleging that the Agency violated its duties under FIFRA by issuing the atrazine ID without substantial evidence supporting the decision.

EPA sought a voluntary partial remand in light of [President Biden's executive order](#) on protecting public health and the environment and restoring a commitment to science and scientific integrity.

December 14, 2021, the Ninth Circuit Court of Appeals granted EPA a voluntary partial remand, which provided the Agency the opportunity to reevaluate the policy decision to use 15 µg/L as the level of regulation for aquatic plant communities.

# EPA's Proposed Mitigation Measures to Protect Aquatic Plant Communities from Runoff

- Prohibit application **when soils are saturated** or above field capacity (i.e., the soil's ability to retain water);
- Prohibit application **during rain** or when a storm event, **likely to produce runoff** from the treated area, is forecasted to occur **within 48 hours** following application;
- Prohibit **aerial** applications of all formulations; and
- Restrict annual application rates to **2 pounds** of active ingredient or less per acre per year or less for applications to sorghum, field corn, and sweet corn.

# Mitigation Measures to Protect Aquatic Plant Communities from Runoff...plus “picklist” items

- No picklist requirements for fields located in watersheds with predicted atrazine concentrations below 3.4 µg/L (approximately 82 % of the total number of watersheds nationwide).
- Fields located in watersheds with predicted atrazine concentrations between 3.4-9.8 µg/L (approximately 8 % of watersheds) would generally be required to choose 1-4 picklist requirements, depending on application rate, crop, region, and soil erodibility.
- Fields located in watersheds with predicted atrazine concentrations of above 9.8 µg/L (approximately 10 % of watersheds) would have the highest level of required picklist mitigations to select.

# Mitigation Measures to Protect Aquatic Plant Communities from Runoff...plus “picklist” items

- No preemergence applications (to the crop)
- Greater than or equal to 30 ft vegetative filter strips on A and B hydrologic group soils
- Greater than or equal to 100 ft vegetative filter strips on C and D hydrologic group soils
- Grassed waterway
- Field border
- Irrigation water management
- Cover crop
- Contour buffer strips
- Contour farming
- Terrace farming
- Strip cropping
- Soil incorporation to a depth of 2.5 cm (1 in)
- No tillage/ reduced tillage

# Mitigation Measures to Protect Aquatic Plant Communities from Runoff...plus “picklist” items

- Picklist items look similar to many of the new label runoff restrictions on the Enlist One and Enlist Duo labels recently re-registered by EPA.
- This time there is an opportunity comment on the proposal.
- Comments due Sept. 6, 2022...extended to Oct. 6, 2022 ?

# Discussion Amongst Region 5 States

- MN, WI, IL, MI, IN, (OH)
- MN...
  - Atrazine surface water monitoring back to 1990s...8,100 samples over 12 years
  - Exceedances of 3.4 ug/L in the 1990s, but no exceedances over 60-day avg. since lowering application rates
  - What default rates were used in the EPA modeling (WARP model from USGS)?
  - Proposed mitigation measures vague & difficult or impossible to enforce
  - What herbicides might replace atrazine if restrictions are too onerous?
- WI...
  - 1500 surface water monitoring data points
  - Only one exceedance of 3.4 ug/L
  - WI already has some atrazine restriction areas based on ground water protection
  - Proposed mitigation measures vague & difficult or impossible to enforce
  - Challenges for applicators who don't own land or make conservation practice decisions each year
- IL, MI, IN... no monitoring data to report, but ditto on the applicator compliance & enforceability



# Comments from IPRB or OISC ?

- Application rates ?
- Compliance by applicators & landowners?
- Enforceability by OISC ?
- Implications for other future product re-evaluation decisions?
- Others?

# Comments or Questions on Off-Target Mosquito Adulticiding Plan?