

Acrolein More Questions

sent 6/6/22 – revised to incorporate earlier questions (in red)

1. For which state or region are you providing answers?
 - WID – Eastern Oregon
2. What is the average single application rate used when treating with acrolein (in ppm)?
 - WID – 1 gallon per/ CFS is the highest they've ever used. They usually treat at a lower rate.
3. What duration of treatment is used?
4. Are higher application rates (ppm) needed for certain situations? Please explain.
 - WID – Rate is determined by the length of the pondweed
5. What is the average retreatment interval in days?
6. What is the average number of applications per year?
 - WID – Treat twice per year.
7. Are there specific times during the year when acrolein is applied and, if so, when?
 - WID - Usually middle May/early June, and again in mid-July.
8. Is acrolein mainly applied as part of a preventative maintenance program, or when the need arises due to increased weed pressure?
 - WID - Would like to use it as a preventative, but they don't because the water temperatures are too low early in the year, and if they treat in lower temp waters, they have to increase the rate of acrolein needed for control. So it's used more as the need arises. The July application goes in once demand in the canal is affected by the pondweed.
9. When used for preventative maintenance, are acrolein applications usually made at the same application point, or at different points?
 - WID – Doesn't use as preventative, but treat at the same two locations every year (twice per location)
10. What is the effective treatment area covered by an acrolein application (How much canal distance is covered with a single application)?
 - WID – 12 miles of canal control from each application
11. Please provide any details regarding requirements for water flow, temperature, injection time length and/or any others relevant to your particular case at the time of application
 - WID – Avoids applying too early in the spring – waits until water hits temperature threshold for applying the lower rate of acrolein
12. What are potential chemical alternatives to acrolein for treating submerged weeds?
 - WID – Teton (endothall) can be used for blue-green algae; doesn't provide much control of pondweed. Teton is also more expensive than acrolein.
13. What are their impacts on the frequency and treatment rate of acrolein applications?
 - WID – none – Teton used for different purpose
14. What are potential non-chemical alternatives to acrolein for treating submerged weeds?
 - WID - None identified
15. What are the advantages and disadvantages of acrolein relative to other alternatives?

-
16. What is your impounding procedure following treatment with acrolein? How long is the water impounded after treatment with acrolein? Following treatment, is the treated water applied to the field or discharged to waterways, or both?
 - WID – only one of the two locations that are treated is impounded. This site is impounded for 6 days in a pond, then some water can be released into the river. They test the water to make sure the acrolein concentration is below the established threshold per their NPDF permit.
 17. Are acrolein applications made to canals connecting to rivers or other natural waterways? If so, what is the distance between the application site and the natural waterway?
 18. Are you aware of any fishing that occurs in canals? If so, what means, if any, are used to communicate acrolein application to fishermen specifically?
 - ODFW – Receive reports that people do fish in the canals but no data on how prevalent the practice is. Likely to be hobby fishermen catching rainbow trout. Fisherman would need a fishing license unless they are the landowner bordering the canal in question. ODFW doesn't do much regulation of fishing in the canals. Per day fishing limits are two fish over 8" per day from May 22 to Oct 31
 - WID - Unaware of any fishing in the canals
 19. What, if any, procedures are used to prevent acrolein reaching fish-bearing waters?
 - WID – test the water to make sure concentration is below the established threshold, per their NPDF permit
 20. What current restrictions on canal access are in place and where are they located?
 - WID – restrictions are no swimming in the canals, and this posting is up year round
 21. To what extent are current restrictions on canal access effective at limiting access?
 22. Is any temporary signage currently used to restrict activities (*e.g.*, fishing, swimming) on canals during certain periods?
 - WID – no swimming signs are posted year round. No fishing signs are posted at the site of application; duration of posting per the label requirements
 23. What signage is currently in place near irrigation canal access points?
 - WID – no swimming
 24. Where is any signage located relative to sections of canal that are treated with acrolein?
 - WID – no fishing signs are posted at site of application; duration of posting per the label requirements
 25. Are there any local public information campaigns or education regarding canal access, swimming, or fishing, in conjunction with acrolein treatments?

- WID – The office contacts the public about the timing of using the product so that growers can opt out of taking the water in proximity to the treatment timing. Contact ODFW and DEQ before doing the application.
26. Apart from signage, are there any other methods used to notify acrolein applications to irrigation canal users?
- WID – The main office sends out notification to irrigators in advance so they can opt out of taking the irrigation water if desired.
27. Are any dyes currently used to track applications of acrolein or other substances in irrigation canals?
- WID – not used every application, but they have previously done travel studies in the canals and have this data to help inform their decision making.
28. What information is available on the properties of specific dyes used in waterways, such as breakdown time when combined with acrolein?
29. Is there any additional information EPA should consider on acrolein use in irrigation canals?
- WID – This is a critical chemical for the district. They don't have alternative controls for pondweed. The pondweed will clog the canals, so they can't get the volume of water needed to their users/irrigators because of the volume of pondweed in the canals.
30. Oregon specific question: Do you treat reservoirs, per the SLN label, canals, or both?
- WID – canals only

Key:

WID = Westland Irrigation District. Spoke with Bobby Baily 541-571-1202 – responsible for deciding when to treat

ODFW = Oregon Dept of Fish and Wildlife. Spoke with Kyle Bratcher 541-318-7928 – fish specialist in Enterprise, Oregon