

Skamania County Tree of Heaven Survey and Control Project Report for 2021 - 2022

Funding:

WSDA – 2021 - 2022.....	\$5,000
USDA Forest Service (Title II) – 2021 - 2022.....	\$7,782
Skamania County – 2021 - 2022.....	\$1,500
Columbia Gorge Cooperative Weed Management Area – 2022.....	\$5,000
WSU Extension/Forest Youth Success – 2022.....	\$1,500
Total – 2021 - 2022.....	\$20,782

Project Purpose and Objectives:

Eradicate tree of heaven (*Ailanthus altissima*) from Skamania County

- Apply control measures against tree of heaven with the goal of eradication in Skamania County
- Educate Skamania County and Columbia Gorge residents about the threats of tree of heaven and the spotted lanternfly (*Lycorma delicatula*)
- Assist private and public landowners with control of tree of heaven
- Protect native habitat using integrated pest management
- Extend public outreach and education through affected communities
- Cooperate with private landowners on eradication efforts



~50-year-old Tree of heaven, Stevenson, WA

Tree of Heaven – Infestations & Survey Efforts

- After preliminary surveys in 2020 and 2021, we partnered with Skamania County's Forest Youth Success (FYS) program in 2022
- 19 teens between the ages of 14-18 and 5 adult staff
- Trained by SCNWCP to identify tree of heaven, look alike species, and the spotted lanternfly, and how to communicate with the public about them
- 3 crews surveyed neighborhoods in Stevenson, Carson, and Underwood
- 324 properties visited and 29 locations mapped using iForm by FYS
- As of 2022, over 400 properties were surveyed with confirmation of 54 landowners having tree of heaven on 61 sites



FYS crew surveying & mapping TOH in Carson, WA



FYS training day



Public Outreach

- SCNWCP submitted several articles in the local *Skamania County Pioneer* starting in 2021
- FYS leaders submitted an article to the local paper about their survey efforts and crews handed out flyers and outreach material to landowners
- FYS crews participated in a social media challenge, creating posts with the goal of generating the most community engagement; 2,731 people were reached with 565 engaging with the posts
- FYS crews gave brief presentations to the Skamania County Board of County Commissioners and at their season's end community luncheon
- A TOH/SLF exhibit by FYS at the Skamania County Fair won a blue ribbon and a Judge's Choice Award and also reached thousands of fair goers



FYS Education and outreach

Tree of Heaven Control

- 7 sites treated in Fall 2021 using hack and squirt method; (make several cuts into cambium layer of bark, 1-2 inches apart, and insert 100% triclopyr)
- 2022 treatments began at the end of August and the last treatment was on December 7
- Multiple treatment methods were utilized, depending on the size of the tree
- Younger, shorter trees were foliarly treated with a 2% triclopyr solution
- Seedlings were either treated with a cut/daub method or as a foliar spray
- 8 sites utilized an injection method, using the EZ-Ject lance and imazapyr cartridges
- 14 sites included a hack and squirt treatment
- 7 sites treated in 2021, 28 treated in 2022



Tree of heaven treatments

Tree of Heaven Control – Results

- In 2021, some treatments occurred late in the season when trees were already losing their leaves; however, this did not appear to impact the effectiveness of the treatment
- 2 sites needed to be retreated in 2022, likely because of improper technique cutting into the cambium layer
- Foliar and hack and squirt methods showed signs of mortality the fastest, approximately 1-3 weeks after treatment
- Trees that were injected with imazapyr showed signs of dying approximately 4-8 weeks after treatment
- Complete effectiveness of 2022 treatments remains to be seen until 2023



*Pre-treatment (foliar)
8/1/2022*



54 DAT, 8/1/2022



*Pre-treatment (hack & squirt)
9/22/2022*



14 DAT, 10/24/2022

Tree of Heaven Control - Challenges

- Because of timing of treatments, results and effectiveness of treatment are often delayed for six months or more
- Larger trees take longer to die
- Seed viability and long-term monitoring are uncertain
- In Skamania County, most tree of heaven occur in residential areas, requiring landowner permission
- Most landowners are unable to deal with very large, dead trees
- Certified arborists for tree removal are expensive
- Removal of large shade trees cannot be replaced quickly



Certified arborist fells large tree 81 DAT, 11/28/2022

Tree of Heaven Control – Future Plans

- Monitor and follow-up on previous treatments
- Secure permission from 18 landowners and assist with treatments
- Secure funding to help landowners remove large trees at approximately 6 sites
- Continue education and outreach to Skamania County and Columbia Gorge residents about the risks tree of heaven and spotted lanternfly pose to agriculture in the Pacific Northwest
- Eradicate tree of heaven from Skamania County!



33 inches in diameter, this tree of heaven was approximately 50 years old