

TREE-OF-HEAVEN: TREE OR WEED

Tree of heaven also known as *Ailanthus* or stinking sumac is a deciduous tree, which is an ecological threat. It was introduced as an ornamental tree, but it has become established in Eddy and many other counties in the US. It is a very persistent plant. It is a fast growing tree that can grow up to 60 feet and is a prolific seed producer. It takes over wherever it grows, replacing native plants and forming dense thickets. It has little value for wildlife, but to many it is an attractive landscape tree - until they try to remove it or control its suckers. Tree of heaven is allelopathic, which means it produces a chemical that prevents other plants from growing near it, thus reducing competition. It has an extensive root system and it sends out shoots from the roots. I have seen the tree in Eddy County having shoots emerging 4 or 5 lots (300-400 feet) from the parent plant.

In Eddy County it has become established in urban and on undeveloped property. I fear that it may become established on irrigation ditches or the river. It sprouts up just about anywhere, including alleys, sidewalks, parking lots, and arroyos. This plant is becoming a serious threat to landscape and agriculture in Eddy County. It was introduced in 1784 in Philadelphia and on the west coast from China. It can reproduce by seed and vegetative sprouting. Flowering occurs in the spring and has male plants with small inconspicuous flowers and female plants with a pink flower. One plant can produce 325,000 seeds per year. Established trees also produce numerous suckers from the roots and re-sprout vigorously from cut stumps and root fragments. This plant has the potential to be as much of a problem as salt cedar was.

Elimination of this tree/weed requires diligence, due to its abundant seed productions, high germination rate and sprouting ability. I have peeled the bark past the cambium layer a foot wide all around the tree - this would kill any other tree, but the plant survived. Control efforts for this plant is a 3- 5 year process using multiple techniques. First prevent it from spreading, maintain desirable plants in a healthy condition. Minimize disturbance of soil and vegetate bare ground with desirable vegetation. Physical control is very difficult by simple cutting or other mechanical means. Not only do they sprout vigorously but also massive root suckering occurs. Cut trees when they are small, cut them as early in the spring as you can after they leaf. Cut regrowth as soon as you see it. Apply an approved herbicide to the cut surfaces within 30 minutes of cutting. There are a number of foliar chemicals that are somewhat effective, but which one you use will depend on the site. Follow up monitoring and retreatment is required numerous times. Any new sprouts or regrowth need to be treated ASAP. This needs to be done before it can build a root reserve. The best publication I know about this is USFS TP-R3-16-09 https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5410131.pdf



Photo of Tree of Heaven Photo by Gary Huntzinger Rutgers NJAES Cooperative Extension

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