

Scientists target mess from Christmas tree needles

December 26 2014, byMalcolm Ritter



In this photo taken Tuesday, Dec. 23, 2014, Gary Chastagner, a Washington State University plant pathology professor, stands among trimmed Douglas fir trees suspended in a temperature and humidity-controlled room at a school research facility in Puyallup, Wash. Consumers consistently cite messiness as one of the most common reasons they don't have a real tree, says the National Christmas Tree Association. (AP Photo/Elaine Thompson)

The presents are unwrapped. The children's shrieks of delight are just a memory. Now it's time for another Yuletide tradition: cleaning up the needles that are falling off your Christmas tree.



"I'm not particularly worried about it ... I'll just sweep it up," said Lisa Smith-Hansford of New York, who bought a small tree at a Manhattan sidewalk stand early this week. She likes the smell of a real tree, she said, comparing it to comfort food.

But others do mind. Consumers consistently cite messiness as one of the most common reasons they don't have a real tree, says the National Christmas Tree Association.

Keeping a tree well-watered goes a long way toward minimizing the needle problem. But beyond that, scientists are trying to find ways to make <u>trees</u> less messy and keep them fresh through the holidays.

IT'S IN THE GENES

Some kinds of trees, like the noble fir or Fraser fir, are better than others at maintaining moisture and keeping their <u>needles</u> once they're in your house, says Gary Chastagner of Washington State University. But even within a given species, some trees are better than others, he said. Needle retention is an inherited trait: if a tree does well, so will the offspring that grow from the seeds in its cones.

SEEKING THE CHAMPS

At a research station in Puyallup, Washington, Chastagner works to identify individual trees that hold onto their needles best. He tests branches cut early in the fall, which encourages needle loss because they haven't experienced cold weather. He lets them dry out and his team evaluates them after about 10 days, looking for branches that do not shed any needles. Needles start to fall off branches from some trees within three to five days when the branch is gently rubbed, even if they aren't dry and brittle. A poor performer may lose all of them within a week.





In this photo taken Tuesday, Dec. 23, 2014, cuttings from Douglas fir trees are suspended in water at a Washington State University research facility in Puyallup, Wash. Consumers consistently cite messiness as one of the most common reasons they don't have a real tree, says the National Christmas Tree Association. (AP Photo/Elaine Thompson)

GOOD BRANCH IS GOOD SIGN

If a branch does well, it means the tree has good genetics for keeping needles. So growers can seek out seeds from those trees to produce seedlings for future planting. These progeny should do well, too. With a federal grant, Chastagner is also working with others to identify genetic markers that indicate whether a tree will resist needle shedding. That would make the tree-screening process much faster and perhaps lead to breeding experiments to produce superior trees.

ANOTHER GLOBAL WARMING WORRY





In this photo taken Tuesday, Dec. 23, 2014, needles on a Canaan fir tree hold drops of water at a Washington State University research facility in Puyallup, Wash. Consumers consistently cite messiness as one of the most common reasons they don't have a real tree, says the National Christmas Tree Association. (AP Photo/Elaine Thompson)

Trees that experience warm autumns tend to have more needle loss later, Chastagner said. So if <u>global warming</u> leads to warmer falls in the future, it could be bad news for Christmas trees, he said. But since his studies focus on tree branches harvested before cold autumn weather sets in, they may identify trees that will do well in a warming world, he said.



FOR NOW, WATER THAT TREE

Chastagner emphasizes that homeowners can minimize needle shedding by keeping their displayed trees well-supplied with water. In fact, when he has set up trees for research in early December and kept them watered, some species, like noble and Nordmann fir, have gone even three months with only minimal shedding. "The potential is phenomenal," he said.



In this photo taken Tuesday, Dec. 23, 2014, needles cover the floor under a Douglas fir tree suspended in a temperature and humidity-controlled room at a Washington State University research facility in Puyallup, Wash. Consumers consistently cite messiness as one of the most common reasons they don't have a real tree, says the National Christmas Tree Association. (AP Photo/Elaine Thompson)





In this photo taken Tuesday, Dec. 23, 2014, a needle pops off a Douglas fir tree after a researcher brushed past it in a temperature and humidity-controlled room at a Washington State University research facility in Puyallup, Wash. Consumers consistently cite messiness as one of the most common reasons they don't have a real tree, says the National Christmas Tree Association. (AP Photo/Elaine Thompson)





In this photo taken Tuesday, Dec. 23, 2014, Gary Chastagner, a Washington State University plant pathology professor, displays a cutting from a Douglas fir tree that's shedding needles at a school research facility in Puyallup, Wash. Consumers consistently cite messiness as one of the most common reasons they don't have a real tree, says the National Christmas Tree Association. (AP Photo/Elaine Thompson)

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