

Future of Biological Sciences



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Award-winning artist Sam Van Aken has grown a hybridised fruit tree that produces 40 different varieties of stone fruit each year.

An art professor from Syracuse University in the US, Van Aken grew up on a family farm before pursuing a career as an artist, and has combined his knowledge of the two to develop his incredible Tree of 40 Fruit.

In 2008, Van Aken learned that an orchard at the New York State Agricultural Experiment Station was about to be shut down due to a lack of funding. This single orchard grew a great number of heirloom, antique, and native varieties of stone fruit, and some of these were 150 to 200 years old. To lose this orchard would render many of these rare and old varieties of fruit extinct, so to preserve them, Van Aken bought the orchard, and spent the following years figuring out how to graft parts of the trees onto a single fruit tree.

Working with a pool of over 250 varieties of stone fruit, Van Aken developed a timeline of when each of them blossom in relationship to each other and started grafting a few onto a working tree's root structure. Once the working tree was about two years old, Van Aken used a technique called chip grafting to add more varieties on

as separate branches. This technique involves taking a sliver off a fruit tree that includes the bud, and inserting that into an incision in the working tree. It's then taped into place, and left to sit and heal over winter. If all goes well, the branch will be pruned back to encourage it to grow as a normal branch on the working tree.

After about five years and several grafted branches, Van Aken's first Tree of 40 Fruit was complete.

Aken's Tree of 40 Fruit looks like a normal tree for most of the year, but in spring it reveals a stunning patchwork of pink, white, red and purple blossoms, which turn into an array of plums, peaches, apricots, nectarines, cherries and almonds during the summer months, all of which are rare and unique varieties.

Not only is it a beautiful specimen, but it's also helping to preserve the diversity of the world's stone fruit. Stone fruits are selected for commercial growing based first and foremost on how long they keep, then how large they grow, then how they

look, and lastly how they taste. This means that there are thousands of stone fruit varieties in the world, but only a very select few are considered commercially viable, even if they aren't the best tasting, or most nutritious ones.

Van Aken has grown 16 Trees of 40 Fruit so far, and they've been planted in museums, community centres, and private art collections around the US. He now plans to grow a small orchard of these trees in a city setting.

Of course, the obvious question that remains is what happens to all the fruit that gets harvested from these trees? Van Aken told Lauren Salkeld at Epicurious:

"I've been told by people that have [a tree] at their home that it provides the perfect amount and perfect variety of fruit. So rather than having one variety that produces more than you know what to do with, it provides good amounts of each of the 40 varieties. Since all of these fruit ripen at different times, from July through October, you also aren't inundated."