

"Streuobstwiesen" – the Meadow Orchards of Germany

Origins, decline and revival

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History

In Southwest Germany, where I live, meadow orchards – or Streuobstwiesen as we call them – are a common sight. Majestic old apple and pear trees, some of them 200 years old and 60' high, widely spaced on grassy hillsides; surrounding an old farmstead; or perhaps lining the farm road between tilled fields. These are the vestiges of extensive orchards of standard pome, stone and nut trees, that were once abundant here.



The ancient Romans first brought cultivars and orcharding practices from Asia to Europe. But it was not until the 1500s that orcharding really started to flourish, when Benedictine monks developed improved and locally adapted varieties. As the urban populations expanded and created a demand for fruit, so did the establishment of orchards. Rulers encouraged planting of fruit trees. In fact, a law was passed in the 1700s, requiring all property owners and newly-weds to plant a certain number of fruit trees.

Trees were primarily planted in areas that were not viable for annual crops: steep hillsides, areas with poor soil, alongside roadways. Dairy became an important industry in the 1900s and farmers realized they could profitably combine grazing with fruit production. This led to the type of meadow orchard that is still most common today: Trees are tall and their lowest branches beyond the reach of the cows; they

are widely spaced, allowing tractors and haying equipment to pass through; the understory is meadow grasses and wild flowers; cultivars are low-maintenance and tolerant of frost and disease.

Meadow orchards peaked in the mid-1900s and have steadily declined since then. The tall trees were too hard to harvest and could not compete with high density orchards for fruit production. Many meadow orchards succumbed to age or were cut down to make way for cash crops. Those that remained were often neglected, more and more gaps appearing where dead trees had not been replaced.

Recently though, there has been a renewed appreciation of meadow orchards for their environmental value. Appropriately managed, they provide habitat for many species of birds, insects, and other animals. Species diversity is so high, that they have even been referred to as the rain forest of Europe. There are now many efforts underway – private, non-profit, governmental – to preserve the remaining orchards and establish new ones. Efforts to educate consumers about the sustainability of meadow orchards are also bearing fruit, which has created new economic incentives for farmers.

Planting and Management

Cultivars are grafted on seedling rootstock: Bittenfelder Sämling for apples and Kirchensaller Sämling for pears. Antonovka and A2 are another, less common choice. A stembuilder is often used as an interstem, allowing nurseries to quickly grow the tall, straight trunks required for a proper meadow orchard tree (e.g. Maunzenapfel or Hauxapfel). Trees are sold bare root, with a central leader and 3 or 4 scaffold branches, that are at least 5' off the ground. Cultivars are regionally specific – selected primarily for good cropping and disease resistance. Besides apple and pear, plum, cherry and walnut are popular varieties for meadow orchards. Specific pear cultivars are available for dessert fruit, juice (for perry or pear brandy) and dried fruit. Sadly, the cooking pear has all but disappeared – along with the knowledge of its culinary uses.

Voles are ubiquitous and destructive, so trees roots are encased in ½" wire mesh at planting. Wire mesh is laid down on the bottom of the planting hole with plenty of overlap, which is then gathered around the trunk after backfilling soil. The mesh is designed to decay after about 5 years, when the root ball is big enough to withstand some vole damage. This avoids constricting the roots and stunting the tree. Updated planting guidelines call for installing a mesh cylinder that extends beyond the tunneling depth of voles, allowing tree roots to grow downward and outward more freely.



Much attention is also given to staking, since the young trees are quite tall and need support for a few years, before they can stand on their own. 3 or 4 tall stakes are pounded into the ground around the tree; the trunk is then secured with coir fibres, allowing for a bit of flex to encourage trunk growth. Finally, wire mesh is installed to provide protection against rabbits and deer. If the meadow orchard is used to graze cows, barbed wire or wooden planks are used for a more sturdy protective fence. Tall perching poles are provided for the raptors that come to prey on the voles.



Meadow orchards are either grazed or mowed twice a year for hay. The practise of mulching in place with a flail mower is discouraged, since it is quite destructive to wild life; and the decaying grass adds too much nitrogen to the soil, preventing many wild flowers from growing. Every few years, farmers may apply some solid manure.

There is a lot of enthusiam and support for planting trees. Unfortunately, there is not an equal enthusiam for pruning the trees. A well-maintained orchard of mature trees is a rare sight; whereas overgrown, bushy trees with untended broken limbs and mistletoe infestations are not uncommon. As in Seattle, teaching pruning skills is a laborious process; and even with training, orchardists may be unwilling or insufficiently equipped to deal with full-size standard trees.



We planted our own meadow orchard 2 years ago: 56 apple and perry pear trees on about 2 acres. Being the tree geek that I am, I grafted all of them myself. At the time I did not know about stembuilders, so the trees are a bit shorter and curvier than they might otherwise be. But they are now well established and we are looking forward to some good growth next year. Some varieties like Harrison and Baldwin are tall enough for us to start selecting scaffold branches, while others have a bit more growing to do. I am looking forward to updating you on the progress in a couple of years time.