

RELATIONSHIP SKILLS

Learning the Benefits of Guilds

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An easy way to see the difference between agriculture and permaculture is to understand permaculture's concept of a fruit-tree guild. In conventional and traditional farming, fruit trees are grown in mowed fields. Such orchards make the trees relatively easy to maintain and simple to harvest. This can be critical when trying to get a product to market.

But in a backyard permaculture setting, an apple tree or any fruit tree can be nurtured to grow in a way that mimics the diversity and productivity of a forest. Permaculturists call this a guild. Like the worker associations of the Middle Ages, and like components in natural plant communities, members of guilds mutually benefit one another and improve the health and overall productivity of the system as a whole.

The relationships among the members of an apple-tree guild become more important than the individuals. Guild members perform more than one function, increasing the overall productivity dramatically. Most are edible, yielding more than apples from your apple-tree guild.

With unpredictable frosts that can blight our blossoming fruit trees here in New Mexico, another benefit of an apple-tree guild is temperature control. As a group, the guild plants slightly increase the ambient air temperature near those fragile, cold-susceptible blossoms. This understory, as forest gardeners and permaculturalists call it, can act like an insulating blanket. The blanket prevents cool air from getting stuck under the tree canopy, while it emanates heat from its living, water-filled mass. Although no level of understory plantings will fend off a serious cold snap, a little bit of plant-based insulation can mean the survival of an entire crop when temperatures briefly dip below freezing.

Since many of the components of guilds provide nutrients or natural pesticides, one of the most important benefits of a guild is that it can thrive without the use of nasty chemicals. This keeps our rivers, soil, and food healthier for generations to come.

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Members of a Fruit-Tree Guild

Legumes. Planted to fix nitrogen in the soil. They convert nitrogen to a form available for other plants, including the tree. It doesn't matter if the nitrogen comes from the roots of a pea, bean or a leguminous shrub, like Siberian pea shrub.

Flowers. In addition to the tree's own blossoms, nearby flowers attract pollinators throughout the year, giving the apples a boost when their blossoms arrive. You can plant flowering bulbs, strawberries or golden currants to encourage spring pollinators, but helping out your local honey bees with pesticide-free food all season long can be critically important.

Living mulches. You can add broadleaf plants like rhubarb, horseradish and comfrey to shelter and protect the surface of the soil, retain moisture in the soil and keep weeds down. These mulch-making plants will usually outcompete any water-hungry grasses and forbs.

Aromatics. Plant your apple-tree guild with dill, fennel, carrot, celery, parsley or one of the other *umbelliferae*—a family of aromatic plants with hollow stems. These will provide a fragrance to attract beneficial carnivorous insects.

Pumps. Many of the above components are also deep-rooted crops that will lift up water and minerals from far below the surface of the topsoil. This simultaneously frees up space for the roots of the apple tree itself.

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