

Maintain an Edible Landscape

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Edible landscaping has been a growing trend. Add the local food movement and one can understand the desire for many people to grow food-producing plants on their property. Some landscapes are designed with fruit and vegetables integrated into the ornamental planting. More simple designs leave open space for homeowners to install their own gardens. There are also clients seeking trained assistance with pruning and spraying of small orchards.

There is no problem with installing or growing an edible landscape, but the process should be approached with caution and knowledge of the potential problems and shortcomings of growing fruit and vegetable crops in the landscape.

Food Plants in the Landscape Design

The manner in which fruit and vegetable plants are incorporated into the landscape design are critical to their success. The quality and quantity of produce depends heavily upon the conditions under which the plants grow. Unlike many ornamental plants, which deliver a certain “look” under a variety of conditions, food crops will bear small crops of poor quality produce unless they are provided with near optimal conditions.

Many, if not most, landscapes do not provide the best conditions for integrating food crops into the design. For instance, adequate exposure to light is critical for producing fruits and vegetables. Maximum exposure to sunlight will result in more flower and fruit production, higher sugar content, and better color of produce. Without full sun the plants will still grow. However, fruit load will be smaller and of lower quality. Landscapes with continual moderate shade will likely not support edible landscaping. Placing fruit trees or shrubs into an existing landscape will normally require placing them in the sunniest area—usually occupied by an expanse of lawn—or incorporating them into existing beds where they will compete for light, water and nutrients.

Problem soil conditions that plague regular landscape beds—compacted soil, poor drainage—will also be a

problem for edibles. If ornamental plants grow well, fruits and vegetables should also perform adequately. The exceptions are stone fruits, which do not do well in heavy, wet soils. These particular trees get established and grow for several years but decline rapidly unless drainage and other water requirements are met. Similarly, root crops such as sweet potato, carrot, beets and potato will produce better in beds with loose friable soil.

Fruit crops, in particular, are unforgiving of water shortages. During the process of fruit expansion and ripening, these plants require one to two inches of water per week. Without it, fruit will be smaller and may drop prematurely. An irrigation system can provide all of the needed water but it should be monitored to assure that it is delivering the recommended quantity. Supplying this amount of water can be problematic if edible plants are installed throughout the landscape. If an orchard, small vineyard, or vegetable garden is installed in a remote part of the yard, then a hose bib or other easy access to water should be installed as well.

Space required by edible landscape plants varies widely. Fruit trees are available as standard, semi-dwarf, dwarf, and even miniature sizes. The sizes most often planted are semi-dwarf and dwarf trees. These would be spaced about fourteen feet apart and can be planted to create a continual hedgerow. Shrubs such as blueberry, gooseberry or currant do well when planted four to five feet apart and can also be used as a hedgerow.



Competition: For maximum yield, fruit is grown in open areas with full sun and no competition. These blueberry bushes will produce six to eight pounds per bush—the yield in the landscape will be much lower.

Trees developed for high density orchards (spindles, trellises) would fit well into tight spaces and also provide a different design element to the edible landscape. Similarly, hardy kiwi and grape can be trained onto arbors or along fences and walls; fruit trees can be trained to a trellis or as an espalier (be sure to use trees on rootstocks selected for trellis growing).

For areas lacking any garden space, containers are a good option. Mixed containers of vegetables or single pots of tomato or pepper do provide a continual small harvest. By the middle of the season, even large containers will be filled with roots and require watering at least once, if not twice, per day. An automated drip irrigation system for the single pot or series of containers will go a long way to prevent the loss of plants due to forgotten watering.

Finally, when incorporating edibles into the landscape one should also consider a common late season nuisance, wasps. Unharvested produce or overripe fruit commonly attracts ants, flies and wasps. These pests are more common with some fruits such as apples, pears and grapes. Clients that want to include these crops should be cautioned that pests, particularly the



Vineyard: A small backyard vineyard can produce hundreds of pounds of fruit. As the fruit ripens it will attract wasps to the area—plan accordingly.

wasps, could become a serious problem in plantings near the house.

Subsequent Maintenance

After design and installation, yearly maintenance procedures for fruit and vegetables are critical to assuring a crop. Be wary of clients that want to follow the trend of growing fresh produce without the knowledge or experience required to actually do it. They will likely request assistance with pruning and spraying after ignoring the plants for several seasons. This rescue maintenance for fruit crops is time consuming and may take several years to bring the plant back into production.

Clients frequently request information about maintenance and seek references of firms that will prune and spray all types of small orchards or vineyards. Regular maintenance of edible landscaping should be included in contracts as they require specific maintenance protocols (pruning) at specific times of the year (late winter). Crop loss can result from missing dates, procedures or treatments.

Prune

There is a generally accepted protocol for pruning fruit trees such as apples, peaches, pears etc.. However, there are other forms of trees for high density orchards that might be a better fit in the landscape including espalier, trellises and spindles. These offer not only the desired fresh produce but also provide a wider palette for creating a design. As with many landscape elements, missing a year of training or pruning incorrectly will lead to loss of the crop as well as the form and structure for which the plant was initially installed.

As maintenance of the orchard is dependent on training for the yearly production of the crop the pruning is less forgiving than that of many other plants. If one is going to pursue the use of fruit trees and shrubs, a modicum of knowledge is needed to be sure that the plants are maintained correctly to get a crop.

As another example, grapes require significant knowledge about production and renewal of fruiting wood in order to have a crop each year. Without regular removal of old vines, the trellis or arbor will quickly be overrun by long unfruitful vines attractive only to nesting birds and yellowjacket wasps.



Currant: Edibles provide a touch of bright color to the early summer landscape. This red currant in a perennial garden is covered by bird netting to protect the harvest.

Fertilize

Unlike maples and oak, or rhododendrons and azaleas, fruit trees and vegetable gardens regularly provide hundreds of pounds of produce to the grower. As the produce is harvested, plant nutrients are removed from the gardens and must be replaced on an annual basis to keep the plants productive.

Soil tests are critical for all landscapes, but even more critical for fruit and vegetable crops. Base annual fertilizer applications on soil test results. Nutrient requirements vary from tomato to bean, and from apple to peach. For instance, peaches require more fertilizer per tree than do pears. Applying the higher “peach-rate” to the pear will cause the pear to push out a great deal of soft, unproductive shoots prone to insect damage and fireblight. Nutrient applications should be tailored to the individual crop.

Pesticides for Maintenance

Fruits and vegetables integrated into the landscape will become a problem if pesticides are applied to the other ornamentals. Insecticides and fungicides for ornamental plants are not usually labeled for use on food

crops. Even though active ingredients in the product may be identical to those in fruit and vegetable sprays, if the label does not allow for application to food crops then the ornamental product cannot be used. Therefore, a landscape with edible portions throughout will require care in pesticide application and all technicians must be made aware of the plant material that cannot be sprayed. However, the unlicensed homeowner can still spray with properly labeled products.

Herbicides can also be a problem for edible landscapes. Products containing 2,4-D can cause problems with highly sensitive plants such as tomato and grape. Under hot and humid conditions, even amine formulations can cause leaf curling in these sensitive plants. Make a note of vegetable gardens or vineyards and avoid those areas when applying herbicides. Make a point of telling clients why those areas might not be treated with broadleaf weedkillers.

At some point in the production of a crop most consumers will need some type of disease or insect control. If a commercial pesticide applicator is going to make an application to fruit or vegetable crops, they would need not only effective products labeled for that crop, but also a license to spray fruit and vegetable crops—ornamental and turf categories do not cover fruits or vegetables.

Edible landscaping, growing green and eating local are all good ideas that have gotten traction in many areas of the country. However, these good ideas require good planning, knowledge of the crop and regular maintenance to come to fruition.

*Set reasonable goals for clients.

*Explain requirements and limitations of edible plants in the landscape.

*Stress the importance of proper and regular maintenance.

*Point out any changes to regular landscape maintenance that will occur if food crops are planted.

Though localvores are not in every house, the number of persons considering growing some produce is increasing—if only as a curiosity. A consumer’s dedication to growing food can translate to additional work in landscape design and maintenance. With planning and knowledge about potential pitfalls, it may be a profitable addition to existing or new contracts.