Intercropping for Good Use of Space

Vertical space is an ignored resource in many gardens. Tall plants can fit very closely to shorter ones, providing the vertical plants are on the north side, or, if carefully planned, on the east or west sides.

Oriental gardens provide the best examples of using vertical space. At the International Gardens in Seattle, trellises support squashes, beans, cucumbers, peas, melons, vining leafy greens, and tomatoes. Many of these tall plants do not bear close to the ground and soon lose their lower leaves, letting shade-tolerant vegetables grow nearby.

Vines are not the only tall vegetables for vertical gardening – sunflowers, corn, Jerusalem artichokes, and grain amaranth are tall plants that can shelter other vegetables. Cucumbers, started late in the season, can be trained up the stalks of early-planted sunflowers. Native Americans often grow squashes among rows of corn. The corn shelters the squash from excessive summer sun without severely reducing yields.

Even with lower growing vegetables there are differences of shape. Tall skinny plants such as leeks, garlic, salsify, celery, and onions can fit snugly next to lettuce, spinach, endive, and other leafy greens. Think of your edible landscape as having valuable air space. Plan to combine the tall and short, the skinny and fat for a more interesting and productive garden.

Intercropping Below Ground – The Shape of Roots

Roots may be out of sight, but don't put them out of mind. Since each vegetable has a distinctive root system – with a particular shape, exploring specific depths of the soil – you can reduce the competition for space, and maybe even for nutrients, by intercropping the right root systems. For example, you can mix carrots with shallow-rooted lettuces. Keep in mind that the upper levels of the soil provide a greater portion of a plant's water and nutrients, regardless of the depth of its root system. (For more detail, see "Deep-Rooted Myths.")

What we see above ground can be deceiving. As Fig. 9.5 reveals, beets have much less foliage than tomatoes, yet the beet's roots may forage as deep as 10 feet, and nearly as wide, while a tomato's fibrous root system is only 4½ feet deep and up to 6 feet wide.

The vegetables in Fig. 9.6 have a shallow root system, within the top 2 to 4 feet of soil.

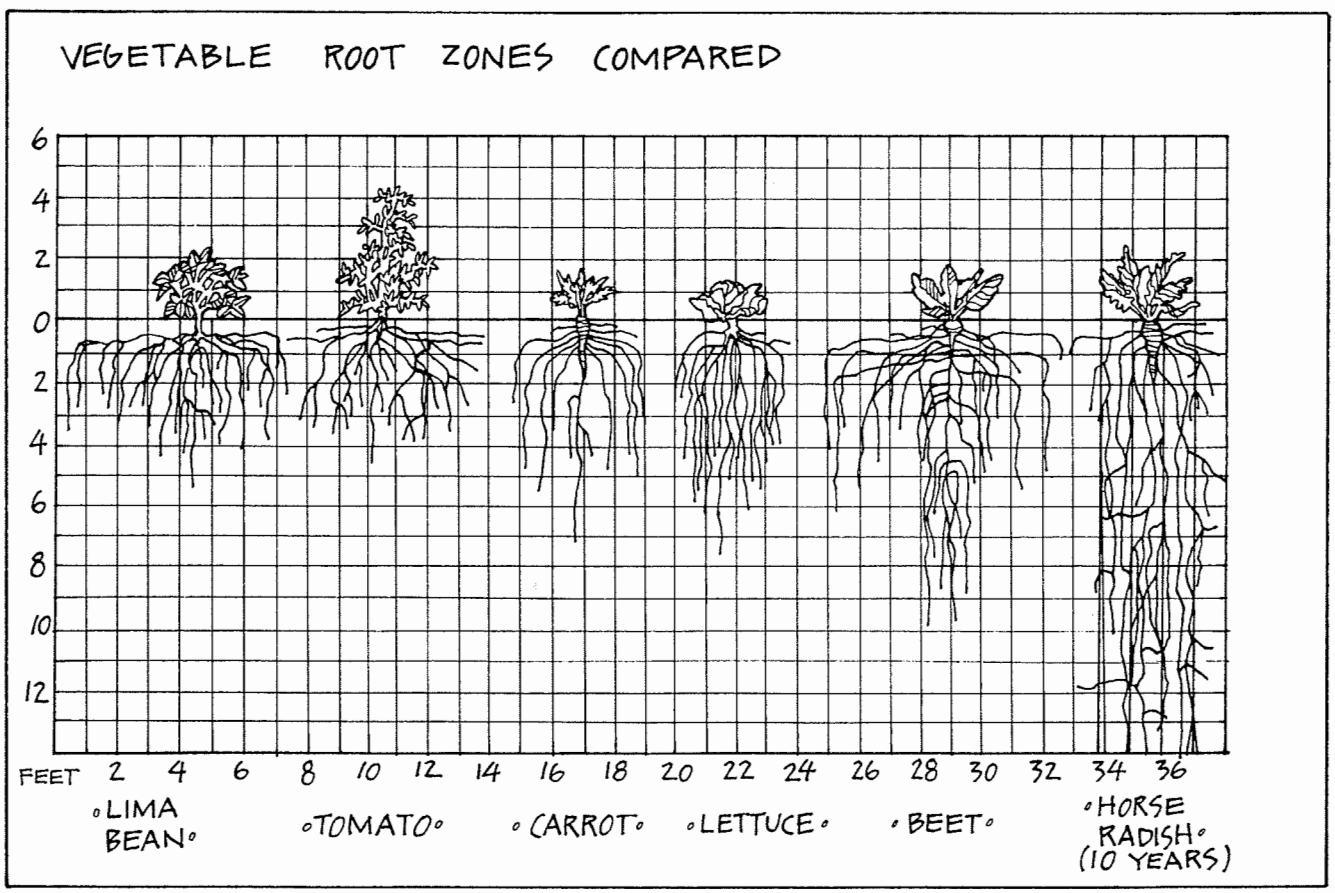

Figure 9.5 The foliage above ground is not a good indicator of the shape or depth of the root system.