Fertilizer application methods and placement

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Getting garden and landscape plants to perform up to expectations requires meeting their nutrient requirements. Woody landscape plants and garden perennials may be able to acquire all the nutrients they need from your garden soil, but may need additional nutrients to prevent deficiencies or improve performance. Other plants such as vegetables and annual flowers have much higher nutrient requirements and should be supplemented according to soil test recommendations to achieve success.

All photos Rebecca Finneran

Fertilizer can be broadcast evenly over the surface of the soil with a broadcast spreader such as this. Smaller, hand-held versions are also available.

Surface feeding

Once your soil test is complete and you have purchased the appropriate fertilizer for your growing area, you can apply it in a variety of manners. **Broadcasting** dry granular fertilizer in a uniform pattern over a large space is a very common method of placement. Commonly used for lawn applications, this can be achieved using a variety of mechanical fertilizer spreaders that allow you to adjust the rate based upon the specific product.

Broadcast when leaves are dry so the concentrated fertilizer doesn't stick to the leaf surface and cause burned spots. Take precautions when filling the spreader to prevent spilling fertilizer out the bottom or over the side, causing large, dead patches in a lawn or garden. A drop-spreader, which "drops" a band of product as it moves forward, can also be used. This type of spreader is challenging to align each edge of the band and not leave unfertilized patches in between.

Fertilizer can also be hand-applied to specific plants or plant rows using the **top-dressing** or **side-dressing** method. Sprinkling fertilizer in a ring around each plant in proportion to its size and rooting area will provide nutrients in a more concentrated area, reducing waste between rows or plants. Top-dressing is also useful to spot treat for major or micro nutrients deficiencies in areas that do not need the uniformity that comes with broadcasting.

Care should be given to keep fertilizer away from the crown of the plants when top-dressing perennials, vegetables, trees or shrubs.

Since the fertilizer is concentrated in a smaller area, care should be taken not to apply too much or allow granules to pile up at the base or touch the trunks of trees and shrubs. Trees and shrubs have a much wider reaching root system than a garden bean, so thought should be given to placement. In a vegetable garden row, the fertilizer can be banded or side-dressed along the entire row.

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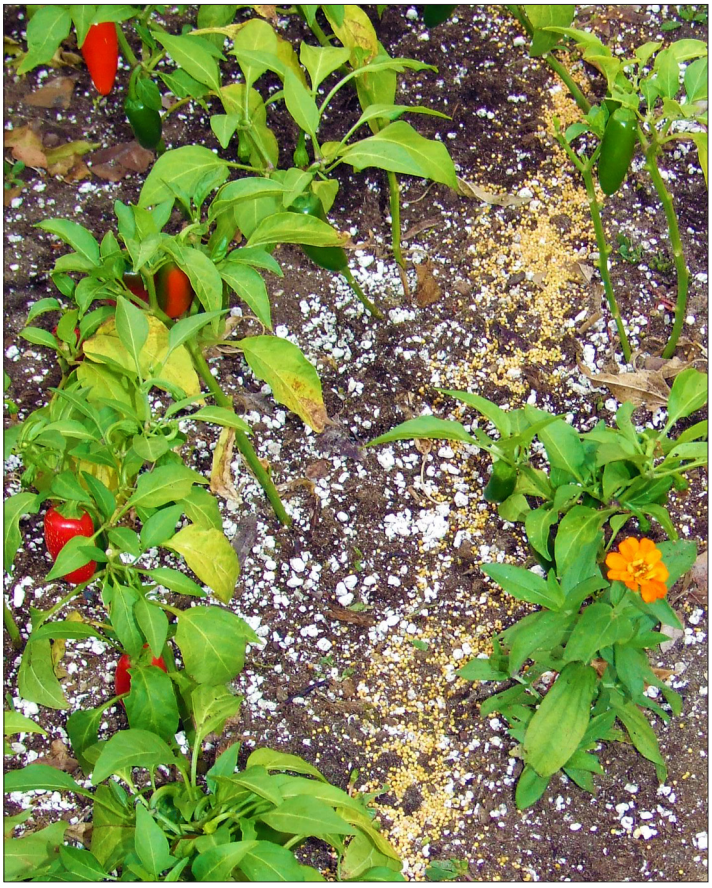
With both application methods mentioned above, timing the application right before rainfall or irrigating after application will not only wash fertilizer granules off of leaf tissue, but will allow for quicker uptake by the plant.

Foliar feeding

Soluble fertilizer products that are intended to be mixed with water are sold as either a liquid or solid concentrate. Once mixed with water at the manufacturer's recommended rate, the solution can be applied as a spray or drench over the foliage where it will be absorbed through the green tissues. Nitrogen, phosphorous, potassium and a number of trace elements are readily absorbed through the leaves of some plants. Plants respond to foliar applications when the nutrient levels are relatively low. Absorption and plant response tends to be fairly quick. Therefore, foliar feeding practices are effective as an emergency treatment. Poorly performing tomatoes or annual flowers are often treated with a foliar application by simply mixing the solution in a watering can and drenching over the top of foliage. Larger areas such as a lawn may require a hose-end sprayer that allows the concentrate to be drawn into the stream of liquid to create the appropriate rate for application.



Side-dressing, sometimes called "banding," is a common placement for vegetables.

Soluble fertilizers, once diluted according to the manufacturer's label, can be directly applied to foliage.

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