# MANAGING SOIL FERTILITY WITH ORGANIC AMENDMENTS

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## Abstract

Amendments and fertilizers are materials added to the soil to enhance soil quality and promote plant growth. Organic soil amendments and fertilizers are used for these same purposes, and are materials specifically derived from living organisms such as animal manures, composts, food processing wastes, and green manures. There are both advantages and drawbacks to consider in choosing which organic materials to use in a particular production system. The nutrients in organic amendments are generally less concentrated than in synthetic fertilizers and must be mineralized by the decomposers before they can be taken up by plants. Consequently, it is often difficult to predict how much of a given material is needed to supply the crop with adequate nutrients. On the other hand, additions of organic residues can improve soil tilth and fertility by increasing soil organic matter levels and biological activity. Furthermore, use of organic amendments can reduce nitrogen losses due to leaching. In order to make the best use of organic amendments in managing soil fertility, it is necessary to understand the process of decomposition. The booklet, *Organic Soil Amendments and Fertilizers* by D.E. Chaney, L.E. Drinkwater, and G.S. Pettygrove, explains the basics of soil organic matter dynamics, offers general guidelines for evaluating organic amendments and deciding which to use, and includes details on various organic materials currently available.