

addition to drying, many companies purchase only cut and sifted product. Once you have an idea of quantity, contact potential buyers to determine what their requirements are. Depending on your facilities you may dry and process the *Echinacea* yourself or contract the processing with a third party. Consider marketing collectively with other growers. Determine your values when selling your product. Is price your main consideration? Is the quality of the eventual product important to you? The end price to the consumer? The politics of the company? Hmmm.

### **Seed**

Harvest when seed heads are brown and the mature seed separate easily from the cone.

### **Foliage**

Harvesting aerial parts for market results in the loss of seed heads as well as loss to the root. The economic viability of this measure should be carefully weighed. It is one way to obtain early returns on the investment and alleviate some of the financial stress implicit in growing a 3 year crop. There is also the possibility of growing *Echinacea* as a foliage crop and eliminate the labor intensive root harvesting.

### **Roots**

Harvest roots in the fall of the third year of growth. Wait until the seed heads have dried. Some of the foliage may still be green. In Zone 5 harvesting generally occurs between October 1st and November 1st. Harvest gently with a fork to keep the root intact, including feeder roots.

Do not let lack of harvesting machinery stop you from planting *Echinacea*. There are many ways to make harvesting a community project. Consider a harvesting benefit or school project. Also, *Echinacea* is a very late harvest. In zone 5 harvest date ranges from October 1st to November 1st. Try collaborating with other growers with earlier harvests and organize a roving harvest team.

## **Conclusions, Recommendations & Further Study**

Organic cultivation of *Echinacea* is a viable undertaking for reasons of economics, quality herbal production and species preservation. It lends itself well to small scale production. New England is an excellent location for production due to the presence of many small diversified farms and large scale gardens. *Echinacea purpurea* is well adapted to the Northeast and easy to grow. Plant in beds or rows alternating with other cash crops, cover crops, wildflowers or grasses to three feet in height. Introduce plants that will attract beneficial insects either in or surrounding the field or garden. Rely on transplants while experimenting with direct seeding. *Echinacea angustifolia* is not well adapted to the Northeast. Keep trials small to avoid economic losses.

There are other factors than the eventual size and appearance of *Echinacea* that need to be considered when growing the plants for the health care market. What is the relationship between *Echinacea* and the grasses, forbs and wildflowers it grows with? How do the chemical constituents of these plants interact? Do they synthesize to make better "medicine"? Can there be more "medicine" even when there may be less *Echinacea* plant produced at higher interplanting densities? Does *Echinacea* thrive best with certain plants or is there latitude in determining what to use for interplanting? Can it thrive interplanted with a second crop such as cut flowers or other medicinal herbs? This is an important land use issue considering that plants will be in the field for three years. What is optimum density? What are the effects on the root when aerial parts are harvested? Many aspects of these questions cannot be answered until the chemical makeup of *Echinacea* is better understood.