Wyoming offers opportunities for alternative crops

By Karen Panter

Horticulture offers many things to Wyoming residents, such as ornamental flowers, trees and shrubs, and fresh produce. It also provides non-traditional alternative crops some may want to explore.

One of the myths about Wyoming is the climate is too harsh to grow many horticultural crops. Producers may not be able to grow much sweet corn, watermelon, okra, or other warm-season crops, but they can certainly raise cool-season plants.

Vegetables

High levels of light and cool nights are conducive to growing all sorts of vegetables in many areas of the state. Radishes, lettuce, spinach, peas, beets, broccoli, cabbage, and even green onions can flourish in the state's generally short growing season. The vegetables can be cultivated in plastic-mulched rows using drip irrigation, but other methods are also used commercially.

Fruits

Grapes are grown in several counties including Sheridan and Goshen, and they can probably be produced in other warmer areas of Wyoming. Raspberries can thrive and maybe even strawberries at lower elevations. Other berries to consider include serviceberries, elderberries, currants, and gooseberries. These are perennial crops that will be in production for many years and so require some up-front planning and thought. They can be placed in rows or plots and all require manual harvesting. (See related story page 21).

Herbs

Many culinary herbs can be grown with little fuss in Wyoming's climate. The easiest are those cultivated for their leaves – basil, chives, and mint for example. The toughest are those nurtured for their seeds (caraway, dill, anise, etc.). Usually, herbs are planted from seeds although transplants can be used. Planting in rows and using drip irrigation and mulch is common. Most herbs can be sold fresh at nearby farmers' markets. Many can be dried and preserved and then sold farther from the field.

Annual herbs or non-winter perennials that can be raised include anise, basil, coriander (cilantro), dill, marjoram, oregano, rosemary, sage, and summer savory. Biennials, which need two growing seasons, include caraway and parsley. Perennials that will produce for several years include chives, mint, winter savory, tarragon, and thyme.

Field-Cut Flowers

As a specialty within Wyoming, there are literally dozens of annual and perennial flowering crops that can be developed for fresh market sales or for drying and preserving. Usually reared in rows with drip irrigation and plastic mulch, specific varieties have been developed for this type of production. Most are grown from seeds. The producer can buy seeds and start them on their own or purchase seedlings and then transplant them outdoors.

The list of possible plant materials is enormous. A few of the many annuals that can be grown in the field for cut flowers include ageratum (flossflower – fresh or dry), snapdragons (fresh), calendula (fresh), celosia (cockscomb – fresh or dry), gomphrena (globe amaranth – fresh or dry), lavatera (mallow – fresh), statice (fresh or dry), and poppies (fresh). Some perennials to try include yarrow (several species – fresh or dry), butterfly weed (fresh), delphinium (several species – fresh), goldenrod (several hybrids – fresh), speedwell (several species – fresh), and culver's root (fresh). All these perennials and dozens of others are hardy in Wyoming.

Woody Plants

Woody plants can be grown in the field for a year or two and then sold to local consumers or at farmers' markets. This is a highly competitive area of horticulture

but could provide niche types of plant materials resilient in Wyoming that may be hard to find otherwise. Most woody plants are brought in from huge nurseries in other states, and the plant material may or may not be acclimated to the state.

There are many different methods of producing woody plants: in rows, in the ground, in containers, and in plots, as examples. There are also different ways to water them, including using overhead sprinklers or drip irrigation. Special planting methods used include grow bags or pots in other pots. Starter materials should be purchased with bare roots and then planted outdoors for continued growth. This type of specialty crop offers more long-term possibilities than others and requires planning far in advance.

Greenhouse Crops

There is growing interest in greenhouse crop production in Wyoming. The high solar radiation levels in the winter and summer plus the dry air make growing plants in greenhouses very possible. Many plants – everything from tomatoes to tulips – can be raised this way, but greenhouses require quite a bit of capital up front. Costs vary considerably. Starting a new greenhouse requires researching different structural types, environmental controls, crops to be grown, and how and where the product will be sold. Successful greenhouse operations are everywhere, though, and can be highly rewarding.

High Tunnels

These are unheated, season-extending structures used for growing vegetables, herbs, cut flowers, fruits, or almost any type of horticultural crop. They have no active heating or cooling system, so they are less expensive to put up and operate than greenhouses.

Other Things to Think About

In deciding whether to try producing alternative horticultural crops, there are underlying principles to consider. First, is appropriate land available? The soil should be good quality, not salty, and not totally clay. Second, is there water available? This is the lifeblood of any horticultural operation and should be given top priority. Water ***must*** be low in salts, particulates, and sodium. The first question to ask a new horticultural crop producer is "Have you had the water tested for suitability for use on horticultural crops?" Water quality can easily make or break an operation. Third, where and how will the crops be sold? Local farmers' markets are rapidly becoming effective outlets. Many horticultural crops are highly perishable and don't ship well. These types of crops can be sold directly to consumers via farmers' markets or right from a producer's door. Fourth, are legal requirements being met? Local building and zoning codes may dictate what can and cannot be done with certain property, particularly if it is near a city.

Always check with local authorities before putting up high tunnels, greenhouses, or other structures. Also, remember that pesticide application is governed by state and federal law.

Many producers are opting to raise organic foodstuffs. Organic farming takes a lot of work, recordkeeping, and supervision. Other producers are choosing pesticide-free methods.

These systems are not organic but do allow more options for fertilization, culturing, and insect and disease management.

Soil testing information sheets can be obtained at any UW CES county office (contact information is at http://ces.uwyo.edu/Counties.asp) or online at http://ces.uwyo.edu/PUBS/MP6.2.pdf. There is a $20 fee for the standard test at the UW Soil Testing Laboratory, which includes pH, salts, organic matter, phosphate-phosphorus, nitrate-nitrogen, lime, and texture. There is a $4 fee for additional tests. The lab is in the College of Agriculture, and the director, Kelli Belden, can be reached at (307) 766-2135.

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