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Researchers are finding that bamboo is a renewable resource that can replace three other resources that are becoming more expensive: wood, oil and metal. For example, in Manizales, Columbia, a city of over 500,000 people, almost all the homes are made with plastered bamboo. They use bamboo canes like Americans use 2 by 4s.

The tensile strength of bamboo rivals steel, which is why bamboo is used extensively for concrete reinforcing in over fifty countries. And just as fuel is made from our Midwest corn, researchers have found a way to distill liquid diesel fuel from bamboo. So we may see “energy plantations” established in many parts of the world just to produce fuel.

Popular Bamboo Varieties

Of the hundreds of bamboo varieties, these are among the most popular with collectors and landscapers. I’ve probably left out one or two of your favorites, so feel free to add them to the list. All plants are listed alphabetically in each size category by common name, followed by the botanical name.

Dwarf Bamboos (Under 8’ Tall)

Chino Varigata (Pleioblastus chino vaginata varigata) This delicate looking dwarf is three to six feet tall at maturity, with half-inch canes. The white striped leaves are long and narrow. Hardy to 10 degrees F.

Dwarf Blackstem (Chimonobambusa marmoreal) This unusual dwarf has dark green foliage and grows to six feet tall with half-inch canes. It’s often used as a hedge, because it spreads rapidly, but also lovely as a specimen plant in a planter. Hardy to 15 degrees F.

Dwarf Whitestripe (Pleioblastus variegates) Often used as a groundcover, this attractive dwarf bamboo reaches three feet in height and has soft green leaves with white stripes. Hardy to 0 degrees F.

Kurilensis (Sasa kurilensis) This dwarf reaches five to eight feet in height, and has large leaves that curl downward. It’s one of the most common bamboos of Japan, and hardy to 0 degrees F.
THE SWEET SMELL OF SUCCESS

Growing and Selling Gourmet Garlic

Although he grows almost 90 varieties of gourmet garlic on his quarter-acre backyard plot, Chester Aaron admits that nobody really needs that many different kinds to eat. His quarter-acre of raised beds is planted with Siberian and Romanian Red, Polish Carpathian White, Georgian Crystal and Purple Tip.

He sells his crop by mail-order for $10 a pound, but he'll give it away to anyone who promises to send him a garlic recipe in return. The recipes turn into cookbooks...three so far. Hearing Aaron describe garlic flavors, you could mistake him for a wine lover...nutty, floral, peppery, tannic, buttery.

Garlic (Allium sativum L.) is a member of the same family as onions, shallots, leeks and chives. For thousands of years, garlic has been used for cooking and for medicinal purposes. Recent scientific research has proven many of the historical claims for garlic's health-giving and medicinal powers. It's chemical ingredients can fight bacteria, lower cholesterol levels, and act as an organic insecticide.

The demand for garlic is growing. According to the Fresh Garlic Association, almost 300 million tons of garlic was consumed last year in the United States. “Garlic is now the second most used spice in America after pepper,” according to the association.

The payoff on garlic can be big if you are willing to work. It’s an ideal crop for the small grower, as it is labor-intensive and almost foolproof. Because garlic tolerates a wide range of soil and weather conditions, it is very, very hard to lose a crop. For decades, farmers have called it the “mortgage lifter” for that very reason. In most areas, garlic starts are planted in the fall, before the first frost, and harvested in the early summer of the next year. In warmer areas, growers can plant in the spring and harvest in the late summer, but with a smaller harvest.
GOLDEN ROOTS

Growing And Marketing Ginseng

There are very few other high value specialty crop that have better long-term profit potential than American Ginseng, the medicinal herb of many uses. Translated from the Chinese, ginseng means “man shaped root”. For thousands of years, the Chinese have used ginseng to treat a wide variety of diseases, increase vitality and help the body ward off illnesses. In the past few years, judging from the prices paid for harvested roots, the demand is growing, as more people discover this healing herb. In addition, growers can generate a good income from selling seeds and rootlets.

Growers can make a good income from a small space, as well. For example, a half-acre planted in ginseng will start producing seeds in the third year. Seed production will be small that year, typically around twenty pounds for a half-acre. The fourth year, you can expect around fifty pounds of seed, then one hundred pounds or more in the fifth and sixth year. Seed is currently selling for around $90 a pound. In the sixth year, a half-acre should produce about five hundred pounds of roots, which are selling for over $150 to $300 a pound, depending on the quality. And, for another source of supplemental income, many growers plant a portion of their seed just to grow two year rootlets for resale. At the current prices, a half acre garden could produce $100,000 worth of seeds and roots over a six year period, or over $16,000 per year. As any ginseng grower will tell you, that beats growing potatoes by a country mile!

American ginseng (Panax quinquefolius) is native to the eastern half of the United States and Canada. It is found growing wild on the shady forest floor under a hardwood tree canopy. It’s hard to spot in the wild, blending in well with other foliage until fall, when the leaves turn yellow and the bright red berries are hard to miss. Traditional Asian medicine considers American ginseng to be “Yin” or calming.
In addition, “Yin” ginseng is thought by traditional Asians to reduce the heat of the digestive and respiratory systems. Because of this, American ginseng is preferred by consumers in warmer regions of Asia, as it is believed to “cool” systems and act as an all-purpose tonic. Researchers have found that ginseng can help boost the immune system, reduce cholesterol, strengthen the nervous system and increase blood circulation to the brain, which can improve memory and concentration.

History Of American Ginseng

American ginseng is one of the most widely-known medicinal plants in America since early European settlers discovered it almost three hundred years ago. In 1715, a Jesuit missionary living among the Mohawk tribe in Canada sent samples of the root to another Jesuit missionary in China, where the herb has been used for thousands of years. And so began the export trade for American ginseng.

By 1776, the export of American ginseng was well established, and helped finance the American revolution. In 1775, sailing ships bound for China were leaving Boston harbor loaded with over fifty tons of ginseng in the hold! George Washington, in his diaries, wrote of encounters with mule trains in his native state of Virginia, loaded with ginseng, heading for the ginseng exporters in Boston.

Even before ginseng was re-discovered by the newcomers, it was widely used by the Indian tribes for a variety of medicinal uses. The root was chopped, boiled and given to babies for colic. Ground ginseng was used for asthma and upset stomach. Ginseng tea was used as an all-purpose tonic by many tribes. The tribes also profited from the export trade, gathering the valuable ginseng roots in the forest and selling them to roving traders. This harvesting of wild roots, called “wildcrafting”, was the easiest way to obtain ginseng until it became scarce due to overharvesting.
GOLDEN HARVEST
How to Grow the Four Most Profitable Specialty Crops

Paul Stamets, a pioneer in the cultivation of exotic mushrooms, has seen interest and demand grow for exotic mushrooms to the point where he has established a research and training center for new growers. He envisions a new "Mycotopian" movement of ecologically sound growers around the world, growing gourmet mushrooms using no harmful chemicals, no manure and no odor, with the waste cellulose recycled into garden compost or even livestock feed.

One of his beginning growers purchased a gallon of spawn for twenty dollars from Stamets, using it to innoculate a ton of free wood chips from a local tree trimming company. She harvested almost two thousand pounds of mushrooms from the chips, selling them at Seattle's Pike Place Market for over six dollars a pound! While Stamets stresses that not every beginner is that successful, he said new growers that started small and expanded slowly, learning from each experience, did well.

Established mushroom growers report a similar yield from the “grow bag” method of around one pound of mushrooms per pound of media (wheat straw or other growing material). Most growers have six growing cycles of about 60 days each per year, and average 25 pounds of harvested mushrooms per square foot of growing area yearly. For example, the yield from a 500 square foot growing room would be approximately 12,500 pounds of mushrooms.

Understanding Oyster Mushrooms

When you eat an apple, you are eating the fruit of the apple tree. Likewise, a mushroom is the "fruit" of the fungus that produced it. The fungi family is an enormous one, including such diverse relatives as yeasts,( used to make beer and wine) and molds (used to make penicillin, miso and flavor cheese). Mushrooms are fungi with a fruit large enough to be noticeable. There are thousands of variations in mushroom color, shape and texture. The oyster mushroom got its name because of it's resemblance to the saltwater oyster.
Five Simple Steps To Grow

Growing oyster mushrooms is a simple, five step process. First, you'll need the "spawn" to start a culture. There are two ways to do this. You can use sterile culture to produce your own spawn, or you can purchase ready-to-inoculate spawn from a supplier. For the more advanced mushroom grower, the sterile culture method is the preferred method, and less costly in the long run.

But since the start-up costs can be high (several hundred to several thousands dollars for a workable commercial-scale system), I recommend that you start out by purchasing your spawn. The cost – just a few cents per pound of harvested mushrooms - is small in relation to the retail price. After you've learned the basics of growing, you'll be ready to advance to spawn production.

Next, you'll need a "substrate", or growing medium. Most growers use straw, usually from any cereal grain, such as barley, oats, rice, rye or wheat. There are other materials, such as deciduous wood chips, that will work, but straw is readily available in most areas at feed stores at a reasonable price. To make it easy for the mycelia (spawn) to spread through the straw, it needs to be chopped into short pieces, wetted, then heated to pasteurize it.

Next, the prepared substrate is inoculated with the spawn. After inoculation, the substrate is placed in plastic bags and moved to a controlled environment where the spawn will spread through the substrate as mycelia, visible as thin white threads (much like spider webs). Once the entire substrate has been "colonized" or taken over by the mycelia, you "shock" the mycelia with cold for a short time to encourage the production of "fruit", or mushrooms. We'll look at each step in closer detail, showing you the "hows" as well as the "whys."

While the process of growing mushrooms might seem radically different from that of growing vegetables, it's surprisingly similar. In both instances, you plant "seed", cultivate your "plants" and finally harvest the "fruit."