

## Indicator 34. Supply and Consumption/Use of Nonwood Products

### What Is the Indicator and Why Is It Important?

The intent of this indicator is to measure the extent to which the supply of nonwood products meets the needs of consumption. Trends in the indicator may reflect changes in either supply or demand, and may also be influenced by changes in social values placed on the products. National consumption, however, as well as the demand for consumption, of nontimber forest products (NTFPs) is unknown. Demand for many specific species is high locally or regionally, and in some cases supply and/or consumption might be an issue, such as for medicinal plants of concern.

### What Does the Indicator Show?

As the number of people desiring naturalness both in an ecological and a cultural sense grows, the demand for and the value placed on natural products increases. In many parts of the United States, producing goods from native plants has become an active expression of cultural survival and conservation of indigenous knowledge. The harvest and use of native species have a strongly regional character, particularly for the species that people wildcraft. Species availability and use can change rapidly with changes in taste and with the introduction of new items into the marketplace. Domestication may mean improved conservation by reducing pressure on stocks, but prices for wild product is often still high enough to keep pressure on the wild resource for species of concern such as ginseng (*Panax quinquefolius*) and goldenseal (*Hydrastis canadensis*). Nonwood forest products are an integral and important part of many rural communities' lifestyle and economy, enabling people to make ends meet during times of economic hardship. The harvest and first levels of production of many goods, such as Christmas wreaths or grave blankets made of boughs, give people a source of supplemental income. One indicator of demand and consumption of nonwood

forest products is the range of products for which people seek commercial harvest permits on public lands. In fiscal year 2000, the Department of the Interior Bureau of Land Management sold millions of permits and contracts for fuel wood, boughs, medicinal plants, greenery, fungi, seed cones, forage, transplants, and other products. In the same fiscal year, the USDA Forest Service sold millions of dollars worth of permits for the same kinds of products. The compliance rate of people purchasing mushroom permits, as an example, is quite variable. In well-established markets with oversight, such as in the Winema National Forest in Oregon, compliance is estimated to be as high as 85 percent or higher. In other areas, compliance is far lower. Permit sales can be used as an indicator of general demand and market size from one product type to another, and for shifts in demand. They cannot be used, however, to calculate total consumption. Projected changes in land use indicate an expected increase in game and fur-bearer species that tolerate intensive land use activities, increases in species associated with agricultural habitats, decreases in species associated with grasslands and early successional stages of forest habitats (especially in the North), and general declines in species dependent on wetlands. Water from forest land has value for municipal users, agriculture, recreation, hydropower, and industry. National forest land is the largest single source of water in the United States and contributes water of high quality. Water from all national forest lands is estimated to be worth at least \$3.7 billion annually, with the Pacific Northwest forests contributing an estimated \$950 million. Water withdrawals to offstream uses, including farms, industry, and homes, increased more than tenfold in the 20th century. Streamflows have dropped, while demands for instream water have increased for water-based recreation and protection of water quality.