

# Why is Mast Important to Hunters?

By Jim Pack

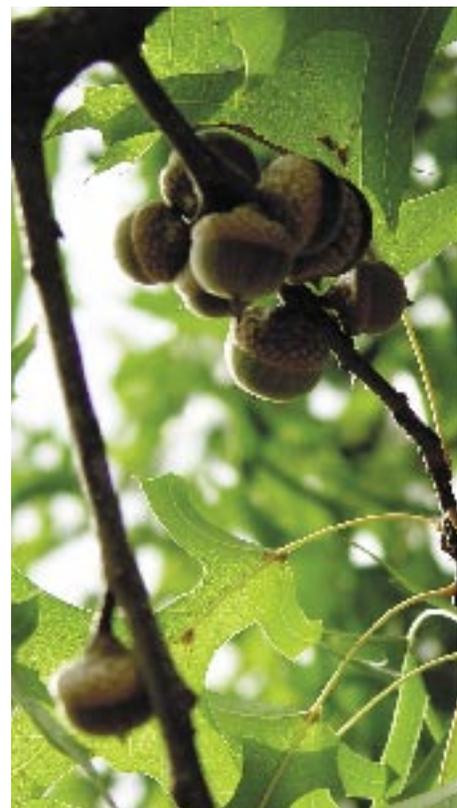
Each year since 1970 a survey has been conducted in every county of West Virginia to monitor the abundance of mast. This survey is conducted primarily by wildlife managers, biologists and conservation officers from the Division of Natural Resources and foresters from the Division of Forestry. What is mast and why would anyone want to spend the time and effort to survey it?

To some, mast is the pole that

holds up the sails of the mighty sailing vessels of bygone days, and to some mast may simply be the flagpole that holds our national and state flags. To a wildlife manager, forester, or hunter mast means something quite different. It is the fruit or seed of woody trees and shrubs.

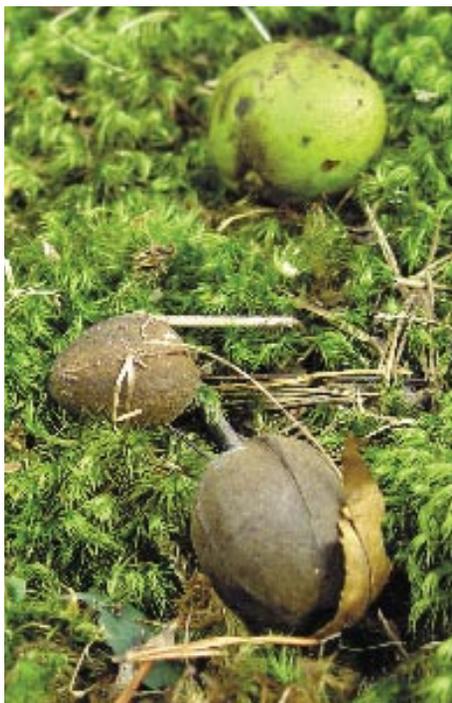
Biologists speak of mast being hard or soft. Hard mast is fruit with a hard exterior, and soft mast is fruit with a fleshy exterior. Examples of hard mast are acorns, hickory nuts, walnuts and beechnuts. Examples of soft mast are fruit like grapes, apples, blueberries and blackberries. Most soft mast ripens from late summer through early fall, and hard mast generally ripens later in the fall and winter.

The mast probably most familiar to West Virginians is acorns from our oak trees which are so prevalent in most of the state. We know some mast is good for human and wildlife consumption. Humans and wildlife relish the mast from walnut, hickory and beech trees. Many people also enjoy picking and eating apples, blackberries, huckleberries and blueberries. The abundance of mast not only affects wildlife survival, it can also have a posi-



Pin oak acorns

Johanna Ellis



Hickory nuts

Johanna Ellis

tive or negative impact on wildlife reproduction. Mast abundance also impacts the number of new seedlings that will appear near the parent tree or shrub.

Oak trees are the most important group of mast species for wildlife. In a good year, more than a quarter ton of acorns per acre can cover our forest floor, and they can be the most important food to carry many species of wildlife through the winter. If we do not manage our forests properly and assure future regeneration of oaks, wildlife populations for future generations will be much lower than what we are enjoying now. Forest wildlife species lost one of the best wildlife foods when the American chestnut was lost to the chestnut blight in the first half of the 20th century. Management of our forests that does not assure the abundance of oak, hickory and beech in our future forests will again decrease habitat quality for our forest wildlife species.

Surveys of mast conditions tell



Ron Snow

**White-tailed deer**



**Chestnuts**



Glenn "Tink" Smith

**Gray squirrel**

Glenn "Tink" Smith

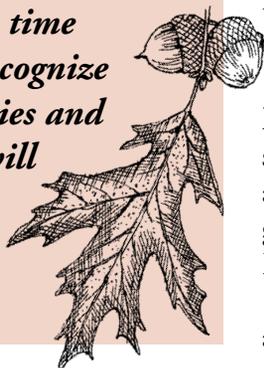
biologists how wildlife will survive and even how productive wildlife will be the following spring and summer. For example, an abundance of acorns and hickory nuts generally means higher survival of squirrels over the winter. The larger the quantity of these important

Wildlife biologists use data from surveys of mast conditions to project harvests during the fall and winter hunting seasons. For example, when mast shortages occur, the archery harvest of black bears will usually increase because bears are easier to locate due to concentrated mast conditions. On

the other hand, a shortage of mast can cause the bear gun season harvest to be lower, because when food is scarce, bears den earlier and are not available during the gun season which is held in December. Mast conditions can also affect the harvests of white-tailed deer and wild turkeys. Generally speaking, the lower the amount of mast, the higher the harvests because these species will concentrate around local areas of food abundance or make greater use of grassland areas where hunters can see them more easily. Knowledge of mast condi-

tions and the ability to recognize mast species are of considerable importance to hunters. Hunters who know their mast and who scout their hunting areas are more successful than ones who do not. *(Continued on next page)*

***Anyone who takes time to learn how to recognize wildlife mast species and mast conditions will be well on their way to becoming a better hunter.***



foods, the greater the number of litters a squirrel may have. A shortage of mast will result in squirrels having only one litter per year versus two litters when mast is abundant. A mast survey allows biologists to predict squirrel population changes the following year.

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Knowledge of mast condi-



Johanna Ellis

**Greenbrier**



Glenn "Tink" Smith

**Deer forages for hard mast on the forest floor.**

Squirrel hunters who don't know their oak, hickory and beech trees and the areas where these species produced mast are seriously hampered. Deer hunters who have knowledge of mast abundance will be able to position themselves in areas where mast is abundant or, when it is not abundant, they will hunt near fields or wood edges. Sometimes mast in an area is abundant on the ridges and scarce in the lowlands or vice versa.

Some hunters purchase every piece of equipment available, buy videos on how to hunt or entice wildlife, and wear the most expensive clothing but do not learn anything about wildlife habitat and foods. A study was conducted years ago that indicated many hunters cannot recognize the best habitat of many game species, and as a result, spend their time hunting the wrong areas.

White-tailed deer hunters sometimes become very upset because they see a scarcity of deer one year in the same area in which they were abundant the previous year. They conclude that too many deer were



Johanna Ellis

**Maple-leaved viburnum**

killed the previous year while in fact the difference in deer could be due primarily to the amount of mast. Mast may have been scarce the first year so deer were more concentrated around fields and field edges, making them easier to harvest. The next year the deer were probably more scattered because mast was more abundant and widely distributed, making it harder for hunters to locate and kill deer. Wildlife professionals can regulate hunting seasons to protect our wildlife resources and improve wildlife habitat, but they cannot control the weather conditions that determine flowering and subsequent year to year mast abundance.

There was a gathering in West Virginia several years ago of some retired biologists who probably had 50 or more years of hunting experience. They unanimously agreed that hunters today probably know more hunting techniques than previous generations but are less knowledgeable about the woods. Anyone who takes time to learn how to recognize wildlife mast species and the mast conditions in an area will be well on their way to becoming a better hunter.

*Jim Pack recently retired as a wildlife biologist stationed in Elkins.*



Glenn "Tink" Smith

**Abundant mast usually means turkeys are widely distributed, which results in a decreased harvest.**