

## Horse Chestnuts

In the isolated mountains of Shirakawa-gō, getting enough nutrition over the long, harsh winters was often difficult. Because the cold climate and limited flat land made rice hard to grow, villagers survived by using whatever natural resources were available to them. Local Japanese horse chestnuts, for example, were processed and added to mochi (glutinous rice cakes), to increase their nutritional value. The result, called *tochimochi*, would keep through the winter.

Japanese horse chestnuts contain saponins, toxins with a bitter flavor that discourages mice and other forest animals from eating them. Saponins also cause sickness when ingested in large quantities, but villagers learned how to remove most of them by soaking the chestnuts in water mixed with the oak ash left from their hearth fires.

Because horse chestnuts were vital to winter survival, cutting down horse chestnut trees was banned. Foraging was conducted village-wide, and all the families who participated received a proportionate number of chestnuts. This is one of many ways in which villagers worked together to ensure their mutual survival.