Chokecherries

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Plant Fact sheet:

Family: Rosaceae

Also known as Prunus virginiana

Introduction: Throughout this grant we ran into a problem with chokecherries. It is such a versatile fruit to use, but there were concerns about the small concentrations of cyanide in various parts of the fruit. This fact sheet serves as a purpose to help with information on the topic. From the Perennial Fruit published by MISA, like most stone fruit, the pits of the chokecherries are poisonous if eaten raw. Both pits and bark contain cyanogenic glycosides, which release poisonous hydrogen cyanide when the pits are crushed (Minnesota Institute for Sustainable Agriculture, 2020). Chokecherry pits cause more concern because they are easier to crush than the pits of the plums, cherries, or apricots. The cyanogenic glycosides are found only in pits and bark and are unrelated to the fruits' astringency. Most of the cyanogenic compounds are destroyed during drying or cooking so, teas for example, made from chokecherry leaves or bark have no harmful effects. The few cyanide producing compounds that leach into jelly and wine are at levels too low to harm humans while giving the final product an almond-like flavor. Through the guide provided below you will hopefully feel confident enough to do your own work with chokecherries or at least have enough resources to do more research if you so choose.

- Prunus virginiana, more commonly known as the chokecherry, is a shrub/small tree ranging from 10-20 feet tall (Colorado State University, 2019).
- They contain a small amount of cyanide in their leaves, stems, bark, and seed pit, but not in the actual berry (USDA, 2020). You can rid the berry of all cyanide by simply cooking it.
- Other fruits of the same family (peaches, cherries, apricots) also contain toxic cyanogenic glycosides which are most poisonous when they are a newly growing plant (Colorado State University, 2019).
- When extracting the juice from the berries it is imperative not to crush the seeds as this is a property that contains the toxin (University of Minnesota, 2020).
- The fruits usually grow in thicker woody areas with moist soil such as along waterways.
- According to Annie Klodd, a horticulturist and extension educator at the University of Minnesota, chokecherries can be safely used for food and drink despite several rumors because the flesh and fruit themselves do not contain the poison, it would take a much higher concentration of seeds to produce enough toxin lethal to a human, and many other relatives of this fruit species are used on the daily (Klodd, 2020).
- The fruit is the most poisonous to livestock because they usually consume the leaves and branches (Klodd, 2020) and this is why rumors began to spread that it was toxic.

References:

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