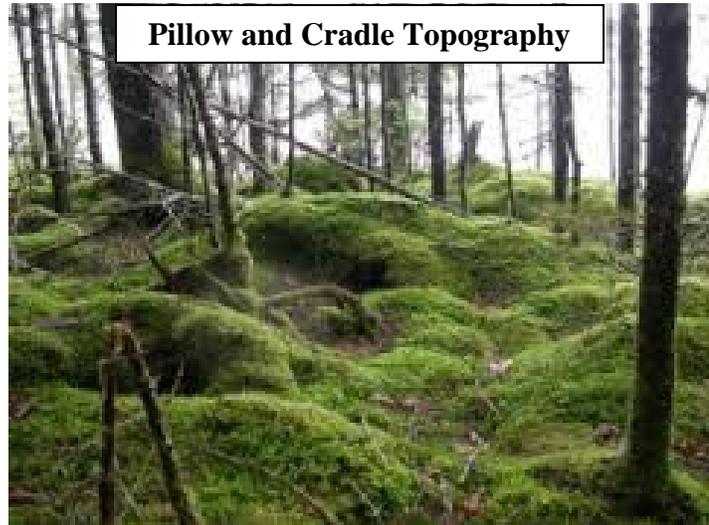


# OLD APPLE ORCHARD

43.5126 N, 72.1333 W

The ground to the west which used to be part of the North Grantham Fairground is quite smooth, lacking the pillow and cradle structure that is common in the rest of Brookside Park. Also notice that many of the trees in this portion of the park are only a few inches wide with even the largest ones being less than 10" in diameter. The ground may have been bulldozed as recently as 1947 when the parcel was purchased to become the North Grantham Fairground, but it was probably first cleared and partially levelled in the mid-1800s to provide grazing land for sheep. In either case, once the Fairground was abandoned in the 1970s, shade intolerant species like white pine, paper birch, and aspen took advantage of the abundant light and quickly colonized the site. You see those as the predominant species here today.



When new trails were being opened in Brookside Park, an old apple orchard was found. At the time, the apples were overshadowed by 50 foot tall white pines and numerous hardwoods. By counting the annual rings of their stumps, we know that the white pines were about 28 years old in 2016 whereas the apples were roughly 31 years old. Most likely, the apples were planted in the late 1980s shortly after the Fairground was abandoned; shortly thereafter, the orchard itself was abandoned.

Fast growing, shade intolerant white pine seeded into the abandoned orchard and quickly grew up to overshadow the apples.

Look at the tall white pine behind you. It has a straight, unforked trunk. Now look at the white pine logs in the brush piles among the apples. Most of them have forked trunks, and the fork appears near the base of the tree. The forking is caused by the white pine weevil, *Pissodes strobi*. This insect likes to eat the terminal bud of vigorous white pine saplings growing in the sun. Because this area was very open, these pines were an ideal host for the weevil. When the terminal bud is killed, the lateral buds compete with each other to become a new leader.



When the pine grove is dense and the young trees are competing for space and light, only two new leaders are formed when the terminal bud is killed. That is the case

for the trees in this grove. So by looking at the pines that grew in this old apple orchard, we can guess that they all seeded in about the same time when the orchard was still fairly young.

The apples appear to have been left unpruned after the 1980s and largely stopped bearing fruit. Since the winter of 2015, lime has been added to neutralize the soil, and many of the overstory trees have been felled and left in brush piles to provide habitat for mice, voles and rabbits. Once the apples have adjusted to the new sunshine and soil pH, pruning will begin to reshape the trees so that they will again bear fruit for deer, foxes, bear, and wild turkey. Compare these trees with the heavily shaded apples to the north. Which have more flowers or fruit? Most of the apples are marked with orange and black & white checked ribbon. Look for signs of wildlife as you walk through the old orchard. Do you see deer browse, animal tracks or droppings?