

At the time of her death, Mrs. Priestly was planning to move to Regina, and intended to take the "Blue Jay" with her, continuing its publication from there. Now, perhaps, if it is the sincere wish of all the subscribers of the "Blue Jay" a Provincial Organization will be formed, which will publish the "Blue Jay" from Regina. We cannot help but feel glad that Mrs. Priestly's plans are at last materializing. We hope the "Blue Jay" will continue to be dedicated to her, in memory of her important contribution to the study of natural history in Saskatchewan.

Ruth Beck.

PHENOLOGY

Have you ever considered why our native Grey Alder puts forth blossoms ahead of leaves or the reason behind the fact that Witch Hazel puts forth flowers while the snow still remains in the woods? These phenomena and countless others occurring in wild and cultivated plants form the basis of the intriguing study of phenology. Phenology is the science of the relationship of local climate to periodicity of living things such as leafing, blooming, seed ripening, etc.

There are increasing demands for information having to do with forest seed setting in various parts of Canada. We often hear of reports of success or failure of the apple crop in Eastern and Western Canada but how many people are conscious of the reproductive value of a good crop of seed from our most valuable tree species, the white spruce? White spruce has been known at times to break its own branches with its near half-ton load of seed-producing cones. At other times cones are scarcely visible,

The Saskatchewan Forest Service has been recording observations on the cone crops of forest trees as supplied by its field men for a number of years. The aim of this survey, is to discover the periodicity of favourable seed years for the profitable harvesting of nursery seed in periods of abundance. Systematic phenological observations tied with climate might point the way to improved forest management practices and will provide authentic information on one of the fundamental factors of the regeneration of a forest, that is, the production of seed.

Cone Crop Census in the Forest Region of Saskatchewan by Major Forest Districts.

	1942	1943	1944	1945	1946	1947	1948
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White Spruce (<i>Picea canadensis</i>)							
District							
Meadow Lake	3	1	2	1	2	1.3	2.8
Prince Albert	2.5	1	3	1	1	1.5	2.8
Hudson Bay	3	1	2	1	1.5	1.5	3.2
Average	2.8	1	2.3	1	1.5	1.4	2.9
Jack Pine (<i>Pinus banksiana</i>)							
Meadow Lake	3	1	3	1	2	1.6	2.5
Prince Albert	3	1	2	1	2	2.5	2.7
Hudson Bay	3	1	2	1	2	2.3	
Average	3	1	2.3	1	2	2.1	2.6

<u>Key</u>	<u>Note</u>
0 - No crop	Statistics compiled from seed reports of 60 co-operatives in widely scattered sections of the forest belt.
1 - Light crop	
2 - Medium crop	
3 - Heavy crop	
4 - Very heavy crop	

The table reproduced above is a tentative study for white spruce (Picea canadensis) and Jack pine (Pinus banksiana) in the matter of seed production. It indicates a medium to heavy crop every alternate year since 1942 including the present year 1948. A series of consistent annual seed surveys may indicate a definite two year cycle and perhaps also a longer cycle in which bumper crops are produced.

Such a variation is known to exist from district to district in other parts of Canada and a further detailed and comprehensive study may bring this interesting angle into focus. Even the origin of tree seed in climatic regions affects the survival of the resulting transplants in forest nurseries according to their geographic position. This would indicate that some seeds are not climatically adaptable to strange sites. For this reason in Norway, seed origin and quality is examined very carefully and the highest quality seed-producing regions are early discovered and earmarked as reliable sources of supply for forest nurseries whose ultimate purpose is the growing of trees for timber.

The introduction of phenological calendars should form a part of the program of every natural history society. If you are interested in the subject I will describe what a phenological chart deals with and how it can be put to local use for the study of plants.

R. F. Arnold, Prince Albert.

ASH BORER, PODOSESIA FRAXINI LUG

Importance of Pest and Recognition of Damage

The ash borer is known to attack green ash, white ash, and mountain ash, but in the Prairie Provinces has been found only in green ash. During the current season infestations reported to the Indian Head Laboratory were more numerous than in past years. These occurred at Pennant, Swift Current, Moose Jaw, Regina, Radville, Estevan, Strasbourg, and Saskatoon, Sask. Several of them were very severe.

The visible signs of ash borer injury are holes or burrows openings in the bark. These vary from one-eighth to one-quarter inches or more in diameter. Such openings may occur singly if infestations are new, or if small trees are affected, but in older infestations in larger trees they are usually grouped together and are often associated with dead sunken areas on the trunks. In addition to the exposed burrow openings, thickened bands almost encircling the stem may be present on the smaller trees and on some of the branches of the larger trees. These bands usually occur at the base of a branch or twig and are scar tissue which has overgrown horizontal surface burrows made by young borers which have failed to survive. Any part of the bole or limbs of a tree may be attacked by the ash borer, but the base of the trunk and the portion just below the canopy, especially