

As they usually climb to the top of a bush or weed to broadcast their call, I stood still, hoping I would be the chosen target for the display. One came on across the grass and over a deep wheel track to my very feet. It was baffled when it attempted to climb my slippery shoe heel -- so, with still unbroken song, it marched on into the grass in search of a safer perch.

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BOTANYTHE FALL OF THE LEAF

By A. J. Breitung

It is generally believed that lower autumn temperatures, frost and wind cause the leaves to fall. These are merely contributing factors. Various complicated physical and chemical changes have already taken place within the structure of the leaf itself so that when it is affected by external influences, it is prepared to fall.

The phenomena that separates the leaf from its stem is called "excision." A plane of cells or layer of separation has been formed which has cut sharply through the petiole or leaf stock, at or near its base. It is impossible for the leaf to detach itself unless this layer of tissue has been previously formed.

The dividing plane may be partially formed early in the growing season but it does not reach its full development until nearly the end of summer.

Shorter days, the lowering of soil and air temperatures result in the gradual lessening and final cessation of activity in the absorbent roots. Consequently the stream of sap decreases and ultimately is unable to reach the transpiring leaves.

The protoplasm withdraws from the leaves; the plastids that carried on their activity in the leaf cells have moved to stem or roots and by so doing, have deposited the essential products, such as starch, sugar, etc., in preparation for the following year. The leaves with their now empty cells can easily be sacrificed.

Frequently all the leaves have fallen even before freezing temperatures occur. However, the alternate freezing and thawing of the cell-sap hastens the process, but frost is not the sole agency.

The fall of the leaf is usually hastened by external influences such as wind, rain and frost, or in the absence of these, the weight of the leaf alone will help to bring about the complete excision.

The fall of the leaf, then, is not an accidental occurrence, arising simply from the fluctuations of temperature and the like, but a regular and vital process which commences with the first formation of the leaf and is completed only when it is no longer useful.

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FLASH!!

Cliff Shaw, our newly elected president, was re-elected as president of the Yorkton Natural History Society for his sixth consecutive term, at the annual meeting, on November 21.

Congratulations to an ardent naturalist, who deserves both honours.

I wish to request everyong interested in the future well-being of our Province to plant as many trees next spring as it is possible to do, especially on the prairie and more open park country areas. I also ask them to refrain from cutting or destroying a single tree in all areas where trees are now growing naturally, unless it is absolutely necessary to do so in order to bring good land into cultivation, or for building sites for some other essential reason.

In locations where the land is stony or sandy or very hilly, it will be found much more profitable growing trees than for any other use. As is often the case at present, the removal of trees from such areas results in the production of nothing but weeds or bare, eroded soil.

I wish also to give a word or two of caution in the proposed planting of trees, and especially of evergreens. It might be a very good idea to find out just what is the present wild rabbit situation in your area and also the outlook for the next three or four years. Rabbits can soon ruin a newly-planted plantation of trees, especially of spruce, pine, tamarac, etc. For this reason, the planting of evergreens or many species of the broad-leaved trees should be timed to coincide with the decrease in the rabbit population cycle. The only alternative is to fence the plantation with high-priced rabbit-proof wire, or to delay planting a few years until the peak rabbit population is passed again.

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AN INVESTMENT IN CONSERVATION

By C.S. Francis

Just over two years ago I purchased a quarter of land, which had a natural water runway cutting through it. The bottom of the runway was covered with coarse wild grass, a few willows and many old beaver dams, beaver runs and deep dry basins. The banks of the runway were grown up to second growth Aspen, Balm of Gilead and willow, but water was to be found in this runway for only a few weeks in the spring and early summer. In the condition that this runway was at the time of purchase, it was unfit for any profitable use. I gave the project a good looking-over and then decided to repair an old beaver dam on the lower end of the runway, near my south boundary.

I hired a big cat-tractor with bulldozer and repaired the old break in the dam. Some of the lower parts were built higher. The cost of this job was \$18.00. Now, two years later, I have a body of water several feet deep at the lower end, and from two to three hundred feet wide. Here, many species of waterfowl nested last spring. Here a family of beavers now live in a very large lodge which they constructed. Here muskrats can be seen swimming about at any time and here, also, are valuable fur-bearers, such as mink and fox. And this great change has come about by a modest \$18.00, "Investment in Conservation." This could be duplicated many hundreds of times in the park and wooded areas of Saskatchewan by anyone interested enough to give our wildlife a chance to help themselves, and at the same time helping to keep our land in the natural balance which prevailed before the coming of settlement.

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