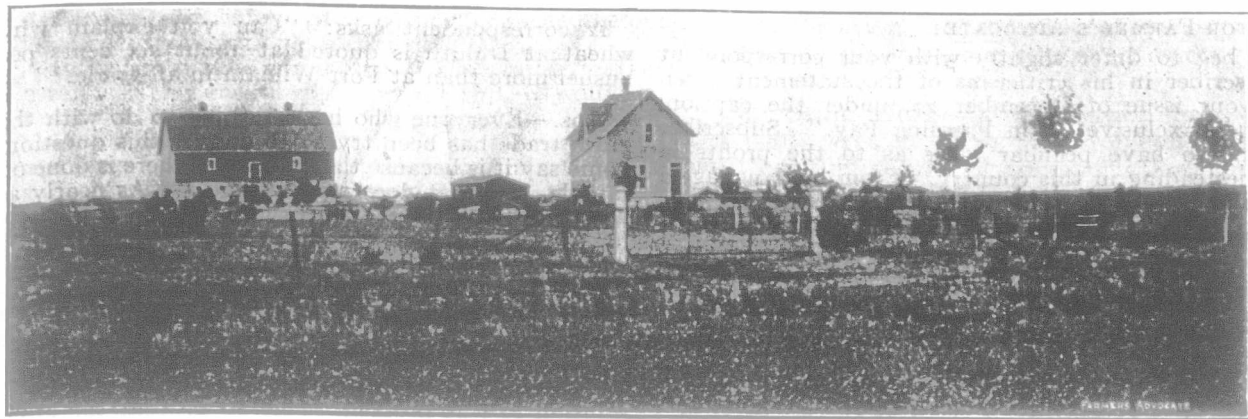


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BUILDINGS AND GROUNDS ON "MAPLE VIEW FARM" OWNED BY D. J. DUTTON, SINTALUTA, SASK.

On this farm 600 trees have been planted out, and Clydesdales and Shorthorns are kept.

to the grain grower, as his entire food supply is gleaned among the branches of the trees. Here he feeds upon the destructive leaf-eating caterpillars, and also devours numbers of moths and beetles. As an instance of the adaptability of nature to cope with an abnormal and destructive increase of insect life, I remember a case in a town quite noted for the variety and abundance of its shade trees, where a scourge of caterpillars promised soon to deplete the trees of foliage. Large numbers of Orioles suddenly appeared and so assisted in the work of destroying the caterpillars that in a comparatively short time the danger was under control.

Even were his usefulness less pronounced, he would be deserving of our protection as one of the most beautiful and attractive of our birds.

The familiar little House Wren is probably as well known as the Robin, and like the latter prefers to live in and around the settlements and farming districts rather than to seek the seclusion of the wilds. Wherever there are nooks and crannies suitable for the building of his peculiar bulky nest, the Wren is satisfied to live and work, trusting in those about him for protection and only asking for the privacy of some gable corner or hollow fence post in which to rear his family. During the nesting season the busy little couple fairly bubble with importance. After much speculating and house-hunting a favorable site is selected, and no sooner does his better half proceed to furnish it, than Mr. Wren loath to be idle, undertakes to build a nest after his own ideas in some nearby situation. In this he invariably meets with failure after filling a corner with a varied collection of dry sticks, till he is contented to work under the supervision of his scolding wife. At intervals he varies the busy day by scouring likely spots for spiders and flies, or from some commanding perch singing his snatches of careless song. After the young are hatched the parents are tireless in their quest for insects and spend the entire day carrying these to their greedy offspring.

Dr. S. D. Judd observed a female Wren make 110 visits to her nest in less than eight hours, and in this time she fed her three nestlings 178 insects and spiders, among them being 14 grasshoppers, 32 May flies, 54 caterpillars and 13 spiders. (1)

It is hardly necessary to say that the Wrens deserve our constant protection, and every inducement should be extended to them to take up their abode about our buildings. A small box with a hole in the side nailed to a post or the side of an out-building will be rarely overlooked by them, and once they have occupied it, they will likely return each season if unmolested. Care should be taken to see that the sparrows do not lay first claim to the nest-box, and for the little trouble involved the farmer will soon find himself many times repaid by the usefulness and companionship of his little guest.

The Kingbird, or Skittler as it is sometimes locally called, belongs to the family of flycatchers, of which it is the largest in this country and consequently is one of our most valuable birds. Most of its food consists of winged insects, which it darts upon from an elevated position, but it also destroys a large number of ground insects such as grasshoppers, crickets, etc., and I have often seen it scoop one of these up from the grass without alighting. Among other birds, and especially the birds of prey, it is something of a thing of terror, and fearlessly drives off any intruders who happen to come lurking suspiciously near its nesting site. It shows a marked dislike for crows, never losing an opportunity to drive these off when they appear in the neighborhood,

and in this way, not only saving its own brood from destruction, but those of other birds nesting in the vicinity.

It usually nests in a small tree or bush at no great distance from the ground, though I have seen a nest placed on the top of a stump and another on the ground beneath a bush, far out on the prairie. As an insect destroyer it has few peers, and there is no doubt were it not for the birds of this class, which feed chiefly on winged pests, the annoying numbers of these would come as a scourge.

Of all the different birds found about the farms, it is doubtful if any surpass the Barn Swallow in economic value. It is only in recent years that this bird has become at all plentiful in Manitoba, having followed the farmer in from the south and east, most probably because the buildings he erects offer to it suitable nesting places. There is now hardly a barn-yard in the country where some of these birds are not seen in the summer months, and the farmer should be indebted for their services wherever they appear, as they destroy enormous numbers of small winged insects, which are so unbearable to both men and animals. They are also spread out far over the surrounding fields and marshes and play an important part in the destruction of the swarms of midges, flies and gnats of various kinds, that abound in the hot months. They never take any vegetable food and show no bad habits of any kind, so that we should do our utmost to protect them and encourage them to increase and build about our premises.

There are a great many other birds which are more or less beneficial to the agriculturist, but as before stated, space will not permit an extended notice of them. I trust however, that a perusal of this brief reference to a few, will impress upon the minds of many who perhaps have not hitherto given the matter serious thought, the great importance of our insectivorous birds not only to the farmer but the country in general.

J. P. TURNER,

Winnipeg, Man.

The Selection and Production of Seed Grain.

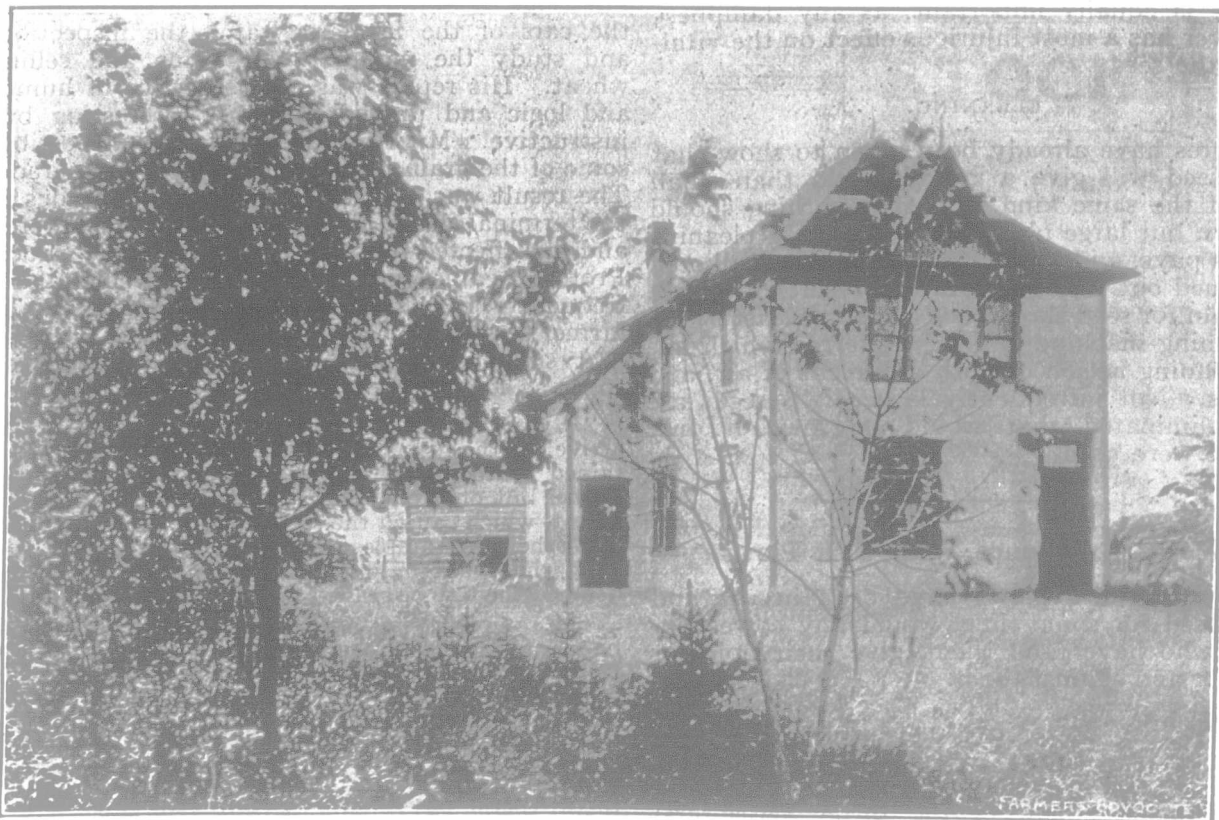
The herculean task undertaken by the Seed Division of the Dominion Dept. of Agriculture is likely to show results more quickly in the great cereal growing belt, than elsewhere in the Dominion, and the interest can be expected to be keener than in mixed farming or stockraising districts. Jas. Murray has recently contributed some maxims and advice which are worth heeding by our readers.

"Only a very small percentage of the seed used in this country is purchased; by far the larger part of it is grown on the farm. The purchase of seed is usually confined to comparatively small quantities, an acreage large enough to furnish all the seed required the following year. In growing seed grain there are important points to be borne in mind.

SEED AND SOIL.

A very intimate relation exists between the soil and the quality of seed produced. To grow a plump and vigorous seed necessitates, in the first place, a soil capable of producing a healthy vigorous plant growth. A soil depleted in fertility by continued cropping produces a weak irregular growth, and it is not able to meet the demands made upon it by a heavy feeding crop. From such soil, therefore, we get seed that is lacking in vigor and uniformity. It is a recognized fact the grain deteriorates in quality if grown under unfavorable soil conditions. When carefully grown on fertile well cultivated soil, they frequently become vastly improved in quality and producing capacity. While the cereals are not so amenable to such treatment as some other crops, it is a fact that favorable conditions of growth maintain and improve good qualities in grain crops, while with poor conditions the reverse is the case. Excessively thick seeding is another cause for decreasing vigor in a crop, while crowding with weeds has a similar effect. The effects become more apparent when any of the unfavorable conditions of growth are continued for a number of seasons. This is shown very clearly by the results of an experiment conducted by Professor Zavitz in the continued selection of Joannette oats, a prolific black variety. For twelve years in succession an experiment was conducted in breeding oats by means of selection of seed. The selections were large, plump, well developed seed, and a light weight, light colored seed. The selection made this year was from the product of the selected seed of the previous year. An equal number of grains was used on each plot each year. In the crop produced in 1904, the large plump seed yielded 94.1 bushels, weighing 34.5 lbs. per bushel, and the light seed 68 bushels, weighing 24 lbs. to the bushel. The crop grown from the large plump seed required only 1,390 grains to weigh an ounce, while the crop from the light seed required 2,095 grains. The results of this experiment show conclusively that oats will degenerate if one of the conditions of successful growth, viz., plump, vigorous seed be absent.

The lack of good soil conditions again, for a number of years, is sufficient in itself to account for marked deterioration in quality of grain.



FARM HOUSE OF MR. W. DARLING, OLIVE, (NEAR TREHERNE) MAN.

(1) Yearbook, Dept. of Agriculture, Washington 1900.