



Yonge Street, County of York, Ont., treated with "Tarvia-B" in 1916-17-18

## Has Your Community a Good Roads Program?

EVERY town, no matter how small, ought to have a definite road program.

Every county ought also to have one.

Roads should not be built in a patch-work haphazard fashion, for the only result of such a policy is stretches of good roads interspersed with stretches of bad roads.

As a chain is no stronger than its weakest link, so a road is only as passable as its poorest parts.

Therefore, alternating good and bad roads is a costly abomination to all who travel over them and all who pay taxes for their construction and maintenance.

Our Service Department has persuaded many towns to work out a systematic road policy, because we have been able to demonstrate that great

sums of money can be saved by so doing.

A system of Tarviated macadam—that is to say macadam that has been

bonded with Tarvia to preserve the surface and make it automobile-proof—is an almost indispensable part of every Good-Roads Program to-day.

Tarvia roads are not only low in their first cost, but exceedingly low in maintenance cost.

Once a town or county adopts the policy of building Tarvia roads it rarely goes backward, but the mileage is increased from year to year.

There is a grade of Tarvia to meet every road condition. Why not map out a Tarvia Roads Program for your community?

The **Barrett** Company  
LIMITED

MONTREAL ST. JOHN, N. B. TORONTO HALIFAX, N. S. WINNIPEG VANCOUVER SYDNEY, N. S.

### Lakeview Yorkshires

If you want a brood sow or a stock boar of the greatest strain of the breed (Cinderella), bred from prize-winners for generations back, write me.

JOHN DUCK - PORT CREDIT, ONT.

Sunnyside Chester Whites and Dorsets. In Chester whites both sexes, any age, bred from our champions. In Dorsets ram and ewe lambs by our Toronto and Ottawa champions, and out of Toronto, London and Guelph winners.

W. E. Wright & Son, Glanworth, Ont.

### ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock all ages. Satisfaction and safe delivery guaranteed.

H. M. VANDERLIP, Breeder and Importer, R. R. 1, BRANTFORD, ONTARIO

Langford Station on Brantford and Hamilton Radial.

**Champion Duroc Jerseys**—Herd headed by two champion boars: Campbell 46, 3941, Toronto and London champion, 1916, 1917; Brookwater Ontario Principal 9735 (imported), champion Toronto and London, 1918. Write, or come and see my herd. Satisfaction guaranteed.

CULBERT MALOTT, R.R. 3, Wheatley, Ont.

### Prospect Hill Berkshires

Young stock, either sex, for sale, from our imported sows and boars; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right.

JOHN WEIR & SON - Paris, Ont. R. R. 1

### KNIGHTON LODGE YORKSHIRES FOR SALE

Either sex, 5 months old; good individuals, well grown. Let us know your wants in Angus or Holsteins

C. C. KETTLE, Proprietor. W. A. WOOLLEY, Manager, Wilsonville P. O., Ontario

Phone Waterford 2930

### TAMWORTHS

Boars ready for service—a choice lot to select from. Also young sows bred for spring farrow. Write:

JOHN W. TODD, R. R. No. 1, Corinth, Ont.

### INVERUGIE TAMWORTHS

Boars ready for service; young sows bred for fall farrow; extra fine lot of little stuff just ready to wean.

Leslie Hadden, Pefferlaw, Ont. R. R. No. 2

### Oak Lodge Yorkshires, Shorthorns

—We have one of the strongest selections of young sows and boars we ever had in the herd. Write us also regarding your next herd sire. We have them from great milking dams—all good families.

J. E. BRETHOUR & NEPHEWS, Burford, Ontario

### Meadow Brook Yorkshires

Sows bred, others ready to breed. Six large litters ready to wean. All choicely bred and excellent type.

C. W. MINERS, R. R. No. 3, Exeter, Ont.

### BIG TYPE CHESTER WHITES

We are now offering Boars farrowed in March and April. Pigs of both sex ready to wean. Also a few bred sows.

John G. Annesser, Tilbury, Ontario.

Is your neighbor a Subscriber to  
The Farmer's Advocate and Home Magazine?

If not send his name in, help him, help yourself—help us. Any Subscriber sending in the name of a new Subscriber and \$1.50 will have his own subscription advanced four months FREE.

## Our School Department.

### Make Nature Study Interesting.

Ten years ago nature study was not a very popular part of the work in public schools, either with pupils or teacher. It is rather curious isn't it, how knowledge of this kind was so long neglected, even among pupils of country schools, where one would think it would be given a great deal of attention because the birds, trees, flowers, weeds and insects are so close at hand. There is an old saying to the effect that familiarity breeds contempt, and perhaps this was the reason why nature study was so much neglected, and is yet for that matter.

When a boy, the writer was particularly fortunate in going to a school where there was a real teacher in charge. It was only a one-room country school to be sure, but as it turned out, there were just as many opportunities for a teacher to teach in this one room, plus the whole outdoors, as there could be in more rooms. As we think of the school, there was no equipment there to enable the teacher to be the particularly good teacher that he was. There was a basement under the school, a furnace, a library, a good-sized playground and a battered old organ, none of which entered into the teaching very materially, although the library was undoubtedly of value to the pupils. Most of the things that we now consider to be worth while, as we look back, were the direct result of his own efforts and those of his pupils. The trustees were not a bit more friendly to anything except the three R's than most others, but as the teacher got busy and made things go, the trustees were willing to add a few dollars here and there to encourage the school.

But we must not wander from the nature-study idea, for this was one of the biggest ideas ever introduced into that school. About the first thing that happened was the decoration of the school walls with pictures of birds. They were purchased for a cent or two each, and were especially true to life. By the time the pupils had become more or less familiar with these pictures, the real birds were beginning to come back in the spring, and then there was a contest started at once among all the pupils to see who could see the greatest variety and identify them correctly before fall. Very few of us could name a dozen birds in the spring, and all sparrows looked alike. By fall some of us had been given credit for over eighty different kinds. The same thing was instituted with wild flowers and weeds, but I do not remember that we paid much attention to insects, although we did have a few small cages made for cocoons of moths, and used to watch them come out, after which those that were not especially injurious would be allowed to fly away. Some way or another the nature study in that school was a part of us all the time, but it never was permitted to interfere with the regular lessons. In fact, I cannot recall that there was ever a nature-study lesson given in school hours, although as I write I can look up even now and see the "teacher" moving from desk to desk, stopping perhaps at a small cage that housed a developing moth or examining a glass of maple or apple twigs to note the development of leaf and blossom. As I look, too, I can see to the right over the library case, fully a dozen or more wasps' nests, of all sizes, one of which is as big as a prize pumpkin. Hanging, too, from vantage points all round the room are birds' nests (last year's of course) of various kinds, from the deep swinging basket of the Baltimore Oriole to the flat nest of the Whip-poor-Will, or a snug little cradle, built of the finest material by the chipping sparrow. All these, of course, were brought by the pupils, and the way we used to scour the woods on Saturdays and after school on school days was certainly something to remember.

Collections of pressed plants, weeds and flowers, were made for the school, and quite a number of us got the fever and made collections of our own at home. I remember having a stone press out in the back shed—and, also, the way my back used to ache, as I lifted on and off, the biggest stones I could find.

Perhaps best of all were the tramps

through the woods. These were merely side trips on the way home at night. The teacher lived two miles away, and many pupils lived in the same direction, although they were planned a day or two ahead so that everyone could find out from home if they could go along. Unless it was easy going, the little ones were not allowed to go, and were sent home by the road. What made the trips so enjoyable was the fact that teacher knew the birds and flowers very well, and could nearly always identify some lusty-throated warbler singing away just out of sight.

Saturdays occasionally, and sometimes on school holidays, as well as in vacation, arrangements would be made for a tramp with the teacher. Sometimes it would be only the older boys and sometimes the older girls; occasionally both. When the girls went along the tramp wouldn't be very long, and would usually be fairly easy. When only boys were in the party, however, we roamed farther afield with our lunches. Then we often came home loaded with flowers, or seeds or birds' nests gathered during the day, but always the real nature study was done on the side. The real fun was fishing in the big "twenty-mile" creek, or rowing in among the reeds looking for water birds, or pelting mud turtles off logs in mid-stream, or climbing up among the rocks, either for fun or for flowers. And then there was the school garden, one of a very few in the province then. Sometimes during the holidays a day would be spent fixing it up, or more likely, the forenoon would be spent at the school garden and the afternoon in the woods.

Such was the plan of nature study when the writer went to public school. Now days there are many more helps for teachers in these subjects than there were then. Most of the handicaps are removed, but there are still many difficulties. Getting the children interested through the holidays will make the work easier when school days come again.

### A Weed-Naming Bee.

The names and nature of the different weeds might be learned in much the same manner as a teacher conducts a spelling bee. In Grant County, Indiana, one of the County Agents, whose work is similar to that of our Agricultural Representatives, conducted a "spell down" in weed-naming at one of the homes in the neighborhood. Leaders were named and sides were chosen. A weed was presented to a contestant and if he could not name it he sat down. The successful candidate remained standing. When the last one was down, all stood up again and the work and fun were continued.

A weed "spell down" might suggest itself to some teachers in rural schools. Such might be staged at the Friday afternoon session, or any time during the week when things of an agricultural nature were being discussed. There are opportunities in it also for a contest during a session in the garden, or a romp in the fields. The pupils could be lined up and when anyone failed to name the weed presented to him, he could drop out of the ranks. After all had been downed so to speak, the line could be reorganized again.

### Efficiency of Teachers.

The town records of one of the early New England colonies contains the statement that one of the colonists having failed at farming, tavern keeping, and about everything else, requested that he be given the position of village school teacher, as there was no other way left for him to support himself and family. His request was granted. Further investigation showed that many of the teachers in the early days were crippled soldiers, and people who could carry on their occupation while teaching, such as cobblers or indentured servants. Men took up school teaching as a last resort; no special qualifications were required, and schools were necessarily as poorly taught as they were poorly managed.

The school teacher of to-day must have different qualifications. Very strict educational requirements must be met, and teachers are trained and fitted for their positions.

When wr