RY 5, 1893

lairy cows after—is to of milk to to digest, into milk. ne term it. at this cow pose for a e a sensible er machine ttend, and eed enough is machine r the sake

esher that els a day as d think it only steam the sake of vould take the same idants, but f 10. Such ice foolish; ideed comw machine The cow, for animal the uses to her words, to make a e can give evelop her will be, in so that the those pron place. In er than the nstrated to)thers have very high wart. You d of in his is not true done, so as vill tend to are "worn feeding. I th scarcely ey were 15

ng the cow way as to le of good hould have [er appetite ered to as er her pasasses. And nilk t

FEBRUARY 5, 1893

THE FARMER'S ADVOCATE

CAREFULNESS IS PROFIT.

I have been trying to tell you how I feed my dairy cows, but I am sensible that I have failed to give more than a slight general idea of it, for each cow has her own individual capacity, which differs from every other cow, which must be studied by close observation and acquaintance, before the feeder is able to do the best that can be done. I never could tell anybody just how to feed my cows. I never dare give instructions to have as much grain fed as I feed, for no one who is not intensely interested in it and in full sympathy, I might term it, with the cows, will be able to feed just right. Some cow might be fed a little too much grain, and it not be observed until she refuse to eat, when it will probably be too late-her digestive organs permanenty injured. When I wish to instruct anybody how to feed my cows, I have to go, taking him with me, and show him, and show him more than once, too.

I will see what I can do to further give an idea of how I feed. If I only had my cows here I believe I could show you. If I only had you down there it would do as well, and I will have to take you there in imagination.

You may stay just as long as you have a mind to, if you only treat the cows well. Now, just imagine yourselves all down at my house three years ago, before I had a silo, because silos are not very plenty yet, and I want you to know how I fed them then. You will have to get up at half-past five in the morning, and go with me to the stable. I shall take some good clover hay and put it in the manger. You observe that I give more to one cow than I do to another. I know just about how much they will eat, and I want to give each cow all she will eat up without leaving any to breathe on.

After the clover hay is fed the milking is done. Every milker has the same cows to milk each time. He commences in the same order, and milks about the same rate, never hurries and never lags, but as near as possible every time alike. If they are going to talk at all they must talk all the time. Sometimes we have had a boy and a girl out there milking. Now, then, if they are going to do any talking they have got to keep it up, but as a rule that does not work very well. I want you to take a look at this cow and see how bright her eyes are. She has a long face and strong jaws, she can crunch an ear of corn down with perfect ease. "Oh," but you say, "how sharp her backbone is."

That is true; it sticks up six inches. But come around here and see what an immense girth she has; such a capacity for eating; how broad she is. "Yes," you say, "how her hip bones stick out." I tell you those are points of beauty about this cow. Her hams are thin, there is a place for an immense udder, and she has one. "I don't see as that is much of an udder." Yes, but I have just milked twenty-one pounds of milk, and that milk has one and a-half pounds of butter in it. Think of that. Now, this cow is the delight of my eye. But you say, "Is she hardy ?" Ain't a cow hardy that will make three pounds of butter a day? But she can't stand hardship, she can't stand cold; the fact is don't believe she has ever been where it was cold enough to freeze. In September, as soon as there are frosty nights, she and all the rest of them are put in the stable, and kept in nights if the weather is cold or stormy. I let them out to drink in the day time, but they drink and come right back. Lizzie will be just crazy to get back to the stable. This feeding and milking is all done before break-fast, you understand. After breakfast, say eight or nine o'clock, we go and let the cows out to drink, and they drink pure water that is warmed up, to say, fifty or sixty degrees, so that the chill is off; and if it is cold weather only a few are let out at a time, so they don't have to wait. If it is pleasant they stay out in the yard a little while and have some marsh hay. At noon they are given a good feed of cut corn fodder, and at night, about four o'clock, they are turned out to drink again, and what is left of this corn fodder is thrown out for bedding; and by the way, every time they are turned out there is a good lot of straw put in, so they have good bedding all the time. The last thing at night the managers are filled up prefty well thing at night the mangers are filled up pretty well with good clover hay. All this is gone through with every day until they go out to grass. They have good pasture and all they want to eat besides, and they will eat just about half as much grain in the summer as they will in the winter, except those cows that are nearly dry.

Indian Head Experimental Farm Tests. The fifth annual report of the Northwest Terriories Experimental Farm contains a very comprehensive account of the elaborate series of experiments carried on under the careful management of Mr. Angus Mackay, superintendent. A representa-tive of the FARMER'S ADVOCATE, upon a recent visit, was very cordially received by Mr. Mackay, who kindly furnished the following data concerning the past concerning. The couly engine was some the past season's work. The early spring was some what cold and backward, and the more tender varieties of wheat and early sown oats and barley suffered in consequence; but these ill effects were counterbalanced to a great extent by the copious rainfall of June, and the exceedingly rapid growth which followed, and harvest was earlier than at one time could have been expected. Little or no damge was done by frost, and the weather throughout he harvest, and until threshing was completed, was all that could be desired. The sample of wheat was good in nearly all parts of the N. W. T., although in many cases the yield was light. In barley straw was short, fairly good yield, excellent sample. The oats were rather light, both in sample and yield, be The ing badly rusted. A very fair yield of peas of a fine, uniform sample. Mr. Mackay desires to draw special attentiou to two important points : 1st, The unwise manner of sowing grain, and 2nd, Smut. Crops run from 30 to 40 bushels per acre off well tilled fallows, and from 8 to 15 off stubble lands, all other things being equal. Stubble lands, whether spring or fall plowed, have not sufficient moisture to sustain the crop during the few hot, windy days of August, whereas the well fallowed lands have the necessary moisture. Many farmers in the Territories sow two, three, and even four crops without plowing. This should not be, as if they wish successful results they should have at least two-thirds of their crop on fallow

The following tests were made with summerfallowing

1st. Plowing deeply in early spring, followed by surface cultivation.

2nd. Plowing three inches deep first, then surface ultivation, with deep plowing after harvest.

3rd. Gang plowing in spring, surface cultivation. Gang plowed again in the fall.

1st. Best for heavy soils.

2nd. Best for light soils, only the first plowing should be six inches deep instead of three.

3rd. The grain ripened four days earlier, but a lighter yield.

SMUT.

Treatment with blue-stone gave satisfactory re-sults in every case. One and a-half pails of water were found better than one pail in treating ten bushels of seed. In the tests made seed was used that was unsaleable on account of smut. Tests were made with one pound blue-stone to 5, 7, and 10 bushels of seed, mixed with one and a-half pails of water to 10 bushels of seed. The treated plots were practically free from smut, while the untreated was one-quarter smut and unsaleable, the yield also being affected at the rate of six bushels per acre in favor of treated seed. There were 48 varieties of wheat, 22 of barley, 25 of oats, and 39 of peas experimented with last season, besides grasses, fodders, roots and trees.

WHEAT TESTS.

Campbell's White Chaff, sown on May 20th, ipened four days earlier than that sown April 15th. This wheat yielded 36 bushels per acre. Red Fyfe did not show much difference in early or late sowing, and yielded 35 bushels per acre. Seven varieties ing, and yielde is busiels per acre, seven varieties of wheat, good in yield and quality in 1891, were again tested side by side in half-acre plots well fal-lowed. Australian, Campbell's Triumph and Chilian White were first and best in earliness, yield and quality. To find the earliest and best variety for future trials 26 varieties were sown on same date on one-tenth acre plots by drill at one and a-half bushels per acre. Campbell's Triumph and Ladoga were two days earlier than Red Fyfe, but in yield and quality the following is the order of merit: Red Fyfe, Azmia, Russian, Assiniboia, Red Fern, Prid-ride's Champlain Lohnston's White Council and gle's Champlain, Johnston's, White Connell, and Campbell's Triumph. The Indian wheats, though earlier in ripening, were very short in straw, with a small yield of poor grain. QUANTITIES OF SEED PER ACRE.

3rd. Broadcast gang plowed three inches deep and harrowed once. 4th. Broadcasted, disk harrowed.

47

Very little difference in yield or quality. The 2nd plot ripened two days earlier.

SUPER-PHOSPHATE OF LIME.

Five one-tenth acre plots; one plot untreated; others treated with different quantities. Five hundred pounds super-phosphate gave four bushels per acre better yield than 100 pounds did, and 5 bushels per acre better than the untreated.

HYBRIDS.

Enough wheat of several hybrids has been cured to sow some one-tenth acre plots next season. BARLEY.

Prize Prolific largest yielder—49 bushels per acre, followed by Sharp's Improved, 48 bushels per acro Duckbill, heretofore the best, did not do so well this year. Six-rowed varieties gave small yields and poor samples. Nearly all the tests made in wheats were followed in barley, but owing to the late spring frosts many of the tests were partially spoiled. With super-phosphates, 500 lbs. gave 6.22 bushels r acre better yield than untreated, but made no difference in earliness or length of straw.

OATS.

Heavy frosts in latter part of April damaged early sown plots, and winds afterwards injured the late sown plots, All varieties were struck with rust, and consequently are light in weight. Twentyfive varieties were tested, six of which had not been and the Cluster were, on the whole, the best varieties, the former yielding 60 bushels per acre, and the latter 52. Some sorts, as the American Beauty, American Triumph, Early Blossom, and Early Etamps, were entirely killed out by the unfavorable spring. In the super-phosphate test, as in barley, made no difference, except in yield of seven bushe's per acre in favor of super-phosphate.

PEAS.

Thirty-nine varieties of field and garden peas were tested; straw was short, yield good, and sample extra fine.

The Mummie	yielded														28.40	bushels	per	aero
Prussian Blue	**														.28.20	6.6	6.6	6.6
Prince Albert	6.6														.28.20	6.6	6.6	6.6
Multiplier	6.6														26.40	6.6	6.6	6.6
White Marroy	vfat and	1	('n	n	w	'n	v	i /	1	d	0	d		25 00	6.6	6.6	4.6

Peas for table use, quality and earliness con-sidered, American Wonder for early, Yorkshire Hero second early, and Champion of England for late, keep up a good succession.

TUMBLE WEED

appears to be fulfilling Prof. Macoun's prediction, made some years ago, of becoming one of the worst known weeds. It actually forms drifts along fences or other obstacles as it rolls along with the wind. The writes saw one plant that would be two feet in circumference, and must have contained many hundreds of thousands of seeds.

FODDERS.

Barley and rye sown on May 5th, cut July 18th. The former gave 5,860 lbs, and the latter 4,800 lbs, cured hay per acre. These were as follows : Barley and oats sows on stubble land on 23rd May, cut 24th of August, gave 4,700 lbs. per acre.

			Sown.	Cut.	Yield Per Acre.
eas and oats, sown	toget	her	May 21	Aug 2	2130
/	separ	rate	4.4	6.6 ⁻⁰	2460
'heat and oats sow	n togo	ether.	6.6	6.6	2500
heat, oats, barley	sown	together	6.6	4.4	2550
ve and barley	4.6	22	6.5	6.6	2400
ve and oats	6.6	6.6	6.6	6.6	2500
		CORN			

Fourteen varieties were sown, but owing to the unfavorable spring, yields were light -from 6 to 9

and they v good the are fed in dry a short m and oat urse, is not In winter as possible fodder and of from 12 regularity ind of food ay, so that by having en they are

possible, I n that food gard all the ow herself, onsulted as asure of her If oats are oats mainly ats will buy exchange. good clean ilk produce that oats ally a very aceous and it one-third e from well vide for my n, and needs clover hay.

LEGAL QUESTIONS AND ANSWERS. [Answers to legal questions of subscribers, by a practicing barrister and solicitor, are published for our subscribers free.]

Spraying Trees.

Q. Is there a law prohibiting the spraying of trees? If so, when did it come in force? Yours, etc., 18

M. PRITCHARD, Strathroy.

A. There is a statute of Ontario passed in 1892 for the purpose of the protection of bees, section one of which is as follows:—"No person in spraying or sprinkling fruit trees during the period within which such trees are in full bloom shall use or cause to be used any mixture containing paris green or any other poisonous substance injurious to bees.

It will be observed that this section relates only to fruit trees and during the time such trees are in full bloom, and other than as provided by the above statute there is no law to prevent spraying trees in Ontario.

Peter	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<i>tipe</i> , pt. 8th · 9th · 8th · 9th	Vield Per Acr 28.20 28.00 26.30 28.20
DI	FERENT DEPTH	IS.	
Depth. Red Fyfe1 inch	Sown. April 20th	$\begin{array}{c} Ripc. \\ \text{Sept. 9th} \\ \vdots \\ 7th \\ \vdots \\ 10th \end{array}$	<i>Vield.</i> 24.30 27.00 22.20
MET	HODS OF SEEDL	NG.	
Sow Red Fyfe Broadcast, "Press Drill "Drill	$\begin{array}{ccc} n. & h\\ May 12th & Sel\\ & \\ & \\ & \\ & \end{array}$	<i>tipe</i> , pt. 9th 3rd 6th	Field. 20.20 -30:20 -24.00

SOUND VS. FROZEN SEED. No. 1 hard against Nos. 1, 2 and 3 frezen. In last year's test No. 3 F. gave 38.10 bushels per acre, and good seed 32.40. This year No. 2 F. gives 36.40. No. 3 F. 33.20, with No. 1 H. only 23.40 per acre, all sown same day, under same conditions every way, and all matured same day.

TREATMENT OF STUBBLE LAND.

The land fall plowed in 1890, crop of Red Eyfe in 1891, stubble burnt off and four methods followed 1st. Common drill; no other work whatever. 2nd. Press drill : no other work whatever.

tons per acre.

RYE

has proved a safe crop, either for late or early sow-ing. Yield 18 bushels per acre.

"Working for Fun."

To the Editor of the FARMER'S ADVOCATE:

Dear Sir, -I have read from time to time the advice given, under the heading of "Timely Notes," by "Invicta," and have in the main agreed with such advice. But there is a part of the notes for December I would like to have him explain further. I fully agree with him that there is a great number of Manitoba farmers "working for fun," and to some of them it is a "nightmare" of a very real kind. In this part of the province some of the most successful farmers are those who came with little or no capital to start with, and to them it has been the goal they have been striving for, to pay *cash* for everything as obtained, be it "binder twine, needful machinery, store goods, or what not." Would "Invicta" please explain how such beginners are to turn over that new leaf he speaks of? Does he recommend them to leave farming till they have sufficient capital to carry them through a year without giving any notes? Do the crops of good farmers always pay expenses and store goods where "Invicta" lives? Then there are those farmers who have bought C. P. R. lands, with golden dreams of No. 1 hard to pay "those yearly instalments," and awoke some fine morning in August to find their hopes and dreams vanished. Since then they have been working an upfill game, with more "hard times" than "hard wheat," and happy if they could only pay the notes when de-manded by their "masters". I know of no way that any man without plenty of capital can avoid going into debt for the *necessaries* to successful farming, till such time that he can make it from the farm. MINIOTA.