### Prepare for Seeding.

In the year 1898 the Ontario Agricultural and Experimental Union conducted nineteen different experiments covering nearly all the farm crops of Ontario on 3,028 different farms in the Province. Of these, 667 satisfactory reports were received by the director, C. A. Zavitz, from various parts of the Province, and from these the following tables have been deduced:

been deduced.		******	
*		WHEAT.	
Variety. Com	. Value.	Straw-Tons	s. Grain—Bush.
		1.34	17.1
Rio Grande Herrison's Bearded	88	• 1.22	16.2
		1.30	18.8
Spring Rye	59	1.43	18.8
	BAR	1232	
Calledon San			34.2
Mandscheuri		1.32	34.0
Oderbrucker	91	1.27	26.9
Kinna Kulla	57	1.22	2.31
White Hull-less		1.20	2.01
	OA	TS.	
Siberian	100	1.68	51.5
Bavarian	91	1.66	50.1
Oderbrucker		1.44	49.3
Joanette	66	1.57	47.6
B. Tatarian	71	1.68	45.9
1	$\mathbf{PE}$	AS.	
Early Britain	100	1.14	23.3
Chancellor	100	1.15	22.3
P. Blue	89	1.29	21.8
Tall W. Marrowfat	78	1.21	20.0
	BEA	NS.	
White Wonder	100		26.8
Cal. Pea Bean	65		19.2
	DECKY	WHEAT.	
	BUCK	WHEAT.	Two years.
3.60.3	189	8—Bush.	Average Bush.
Japanese		16.6	22.8
Silver Hull		17.	22.7
Common Gray		16.1	21.3
	MILL	ET.	
Com	Value.	Height.	Tons-green.
			8.4
Jap. Pannicle	100	21.8 26.0	8.0
Jap. Barnyard Jap. Common	77 190	24.2	7.9
Hungarian Grass	31	23.2	5.6
Hungarian Grass			0.0
27	COF	EN.	
	ight. hes. Ea	rs-tons. Cro	p-tons. Stage.
Mastodon	98		4.6 dough
Mam. Cuban			2.8 dough
Wis E W Dent	85		1.6 firm
Wis, E. W. Dent Salzer's N. Dakota	73		0.8 ripe
Early Butler	82		0.2 ripe
Early Butler Kendle's E. Giant	52	2.1	6.3 ripe
	GUMINO	US CROPS.	
Like	COMINO	Com. Value.	Tons-green.
Cmaga Dag			B
Grass Pea			7.9
Tares, Crimson Clover		79 55	7.2
			5.4
MIXTURE	S FOR	GREEN FODI	)ER

Crimson	Clover		79 55	7.2 5.4
	MIXTUI	RES FOR GR	EEN FODDER.	
			Tons-3 years.	Tons -1890
Oats, 11 Peas, 1	bush. per ac	re } 88	9.3	4.8
Peas, 1 Oats, 1	"	} 100	8.9	5.7
Oats, 1 Tares, 1		} 77	8.2	5.1
		CLOVED EVE	HAV	

1	Height of	Crop-inches.	Yield n	er acre.
	1st year.	2nd year.	Green.	Hay.
Mam. Red	. 15	42	5.4	3.0
Com. Red	8	26	8.5	2.5
Alsike	. 8	25	7.5	2.4
Lucerne	. 9	26	7.7	2.0
	CA	RROTS.		
vi .		Com. Val	ue. Tons	per acr

Long W. Vosges	83	28.4
Large W. Belgium	69	27.6
Guerande	61	20.7
Danver's Orange	51	21.5
MANGELS AND SUGA	R BEETS	3.
Evans' Im. Mam. S. Long	87	35.1
Sunmer's Im. L. Red	100	34.7
Danish Im. S. Beet	79	31
Carter's Y. Intermediate	65	27.5
Carter's Y. Globe	46	26.1
TURNIPS.		
Purple-top Mam. Fall	89 4	39.3
Jersey Navet	67	38.0
Hartley's Bronze-top Swede	100	31.9
White Swede	78	29.5
POTATOES		

	Days to mature.	Table quality.	Per cent.	Yield, bush.
Am. Wonder	124	80	81	191
Empire State	113	97	83	190
Tonhocks	101	100	73	173
Great Divide	109	82	71	161
Burpee Ex. Early	94	100	70	150
Stray Beauty	83	57	66	124
The above resone rod in extent the comparative	t, and ma	av be ta	iken as a o	nide t

to in the lists. They were selected as the best varieties grown on the Guelph Experimental Farm for a number of consecutive years. The results shown in the tables are the averages from the many correct reports received from all classes of soils over the various portions of the Province.

The time should be improved during the month of March to prepare for the spring seeding, by getting the seed grain prepared, so that time may not be lost when the weather and the land becomes suitable to start seeding. As a rule, the early sown crops prove the most successful. Implements, harness, etc., should, of course, be overhauld, repaired and put in first-class condition, so that everything may be in readiness when wanted.

### An Admirable Stock Barn for a Small Farm.

A very complete little barn and basement has been fitted up during the past year by Mr. J. W. Craig on the fifty-acre farm he recently purchased some four miles north-east of the City of London. The upper structure has the frame of the old barn, but it has been sided up, painted and modernized to suit the new basement. The basement has stone walls 8 feet high, 21 inches thick, that stand upon concrete foundations 3 feet 3 inches deep and 2 feet 6 inches wide. As the basement plant shows, it is well lighted. The root-house extends beneath the driveway to the barn floor above. It is the intention to erect a cement concrete silo opposite the center of the east end, where a door space is shown. The arrangement of stalls for the stock is clearly shown in the plan. If desired, the horse stable could have been shifted back far enough to admit of two more double cow stalls, or the drive shed could have been made the horse stable and the cow capacity doubled. As will be seen, the plan is one which can be enlarged along the same lines to suit any sized farm, and still retain the convenience of caring for the stock. The farm is provided with excellent springs, which will be used to operate a hydraulic ram to supply fresh water in the stables.

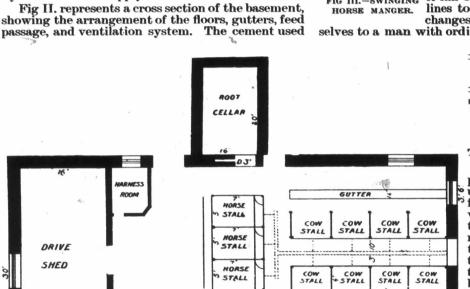
showing the arrangement of the floors, gutters, feed

The feed passage is 8 inches higher than the floor. This, with an 8-inch board upon it, forms the back of cattle mangers. The stalls are 7 feet wide and 7 feet long. The divisions between the stalls, extend back 4 feet from the passage and are low enough that the backs of all the cattle are in view when standing up. The posts are set well down in cement. The gutters behind the cattle are 14 inches wide. One is 6 inches deep and the other 8, and Mr. Craig prefers the shallower one.

The horse stable is roomy and well equipped. Fig. III. shows the sort of mangers used. They are made the width of stalls, and swing on a rod (passing through the bottom near the floor) back into the passage to receive the hay or other feed. This is Mr. Craig's own invention, and, we believe, a good one. The heavy curved line at the top represents iron basins, in which the grain is fed. The floor of the stalls is covered with planks, which can be taken out and cleaned beneath. as desired.

Taking the basement as a whole, it is one of the neatest plans for a small farm we have seen, while it can be extended along the same FIG III.-SWINGING lines to suit any sized herd, with

changes that would suggest themselves to a man with ordinary inventive ability.



72 feez FIG. I.—BASEMENT PLAN OF MR. J. W. CRAIG'S STOCK BARN.

BOX STALL

was from Queenston, Ont., and put in under instructions of Mr. Isaac Usher, whose ventilation system is also employed. The elevated platform, 3 feet 10 inches wide, between the two rows of cows has a 6-inch tile running through it lengthwise and opening to the outside of the building. This is shown in Fig. II., marked "fresh air." It is shown in Fig. I. by the double dotted line, and the single dotted lines are inch gas pipes conveying fresh air to the center of each double cow stall and to each horse stall. The outer end of each inch pipe has a perforated cap, which admits the fresh air as a spray, so that there is never any draft. As the temperature rises in the stable the heated air escapes by the ventilator shown above in Fig. II., making room for more fresh air to enter. With this system the doors and windows can be kept tightly closed, and the temperature will regulate itself, keeping the air pure at all times.

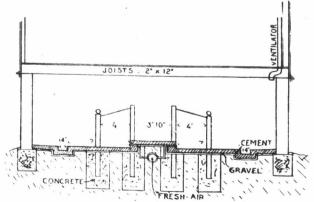


FIG II.—CROSS SECTION OF STABLE, SHOWING ARRANGEMENT OF CEMENT FLOOR AND VENTILATION SYSTEM

It might be remarked just here that as a rule the temperature in stables ventilated by this system regulates itself at about 50 degrees in all winter weather. Now, where a dairyman considers a warmer atmosphere better for his cows, the tile shaft could be constructed under ground for 60 to 75 feet, when the air would warm up to the temperature of the earth. In such a case the duct should go below the frost line, and it should have a tile drain below it to convey away the water that might enter the duct.

# DAIRY.

#### The Cream Separator **Essential to Success** in Dairying.

## To Editor FARMER'S ADVOCATE:

As you ask for the experience of those who have used the cream separators for the benefit of those who may think of buying this year, I will give you mine. I might say I have tried the shallow-pan and the creamer can, but find the separator does much better than either. I bought the largest size hand (or power) machine I could get. I wanted to keep about 25 cows, and I thought that would be too much milk to separate by hand. Then, again, I thought sometimes there would hardly be enough milk to make worth while

starting a power. After nearly five years' experience, I still think this is the best size for the farm dairy, and it is from this point of view I am writing. The first cost of the machine is more than it should be. Still, if dairying is to be a success, the separator must be counted If it will pay to dairy without the separator, it will pay better to have one. More and better cream is got, and with less trouble. If proper care is taken of the separator there will be no expense after first cost; I haven't paid more than \$2.00 for repairs in the time I have been running this one, and it has been in use winter and summer.

Now I shall try and tell you how some of the work is done. I might say I had no bank account to start with, but had to make the money out of the dairy to pay for any improvements made; it has done that and paid for many other things; has never been hailed out, frosted, or otherwise damaged. When we built the house, we put a lean-to on the north side, 12 x 24, for a dairy room. This is fitted up for churn, separator, and butter-worker. A piece of shafting runs nearly the length of the room, or rather two rooms, as it is divided, and on the west end there is a stairway leading into the cellar. Behind this building we had a tread power with belt running onto shaft. The milk is drawn to the dairy on a cart, made with low-down platform. This cart was made at very little expense as the wheels were borrowed from the drill, and all the work was done at home but the axle. On this cart we put a cheese-factory can, as it has a cover which prevents the milk from slopping over. The cart is placed at stable door, as the milking is done there winter and summer. No smoke (smudges), no running around after cows, and when it rains, if the cows are allowed to stand for awhile the milker is dry while milking. Salt is often in the mangers; this is better than putting it on the ground, as I have done and many others do. A strainer is held over the can by means of a hoop. The strainer is made of cheese cloth—as many thicknesses as desired and allowed to car done in the content. sired-and allowed to sag down in the center so the milk can be poured in without slopping over. When the milking is done, one man can run the cart to the dairy; the milk is taken off at a platform at the door of the dairy, which is the same height as the platform of the cart; then a barrel is put on the cart, placed under a spout connected with the skim milk spout of separator. When separating is done the cart is run back to the stable and the milk is drawn off by means of a tap at bottom of barrel; this saves the trouble of skimming the froth from