The condition of the crop, however, is good evidence that such treatment to destroy smut spores on the seed sown has not been fully effective in preventing smut in the resulting crop. It is not definitely known whether the vitality of all the smut spores on wheat or those contained in smut balls can be killed by the 'sprinkling' or 'pickling' process, or even by 'dipping' for five minutes. There is also some very good evidence, (which may be seen by observing the condition of the crop on land that was thickly seeded with smut spores blown from the threshing machine during the previous season), that smut in the crop may result from smut spores that have blown onto the soil at time of threshing. These are problems of great importance to western grain growers. To get reliable information concerning them we have to look to the results of investigation work on the part of trained biologists who are familiar with the soil and climatic conditions of the west. Such an investigation is now in progress under the direction of officers of the University of Toronto, who are well qualified for the work. Whatever further information be obtained from such work will, doubtless, promptly be given to the western growers.

THE PREVALENCE OF WEEDS.

The control and suppression of noxious weeds in the provinces of Manitoba, Saskatchewan, and Alberta, is one of the most serious problems with which grain growers have to contend. They are much more in evidence in the older settled districts. In some of the localities where competitions were conducted, it was difficult to find a field of wheat entirely free from wild oats and some of the various kinds of mustards. Noxious weeds are much less in evidence in new districts. It is encouraging to note the keen interest taken by grain growers in almost every part of the western provinces in the matter of weeds and the best methods of controlling and eradicating them, and it is decidedly creditable to farmers, in some of the older districts where weeds were exceedingly prevalent a few years ago, that they have effectively put those methods into practice.

The 58 samples of wheat that were examined were supplied by Mr. David Horn for use on the 'Seed Selection Special' to indicate the particular kind of weeds most prevalent in the districts that were to be visited. A few of the samples did not contain more than one or two species of weed seeds, but these were present in very large quantities. Out of the 58 samples examined, wild oats were found in 50, purple cockle in 31, ball mustard in 30, hare's ear mustard in 22, common wild mustard in 21, stinkweed in 21, catchfly in 16, false flax in 13, great ragweed in 10, common ragweed in 8, and Canada thistle in 7. Only one sample was free from seeds of the foregoing weeds, which are included among the noxious weeds named in the Seed Control Act.

In addition to the weeds named in the Seed Control Act, seed of black bindweed was found in 51 of the samples, lamb's quarters in 48, vetch seeds in 25, red root (pigweed) in 10, wild rose in 18, meadow sage in 17, stickseed or blue-bur in 15, green foxtail in 11, and various species of sunflower seeds in 33 samples.

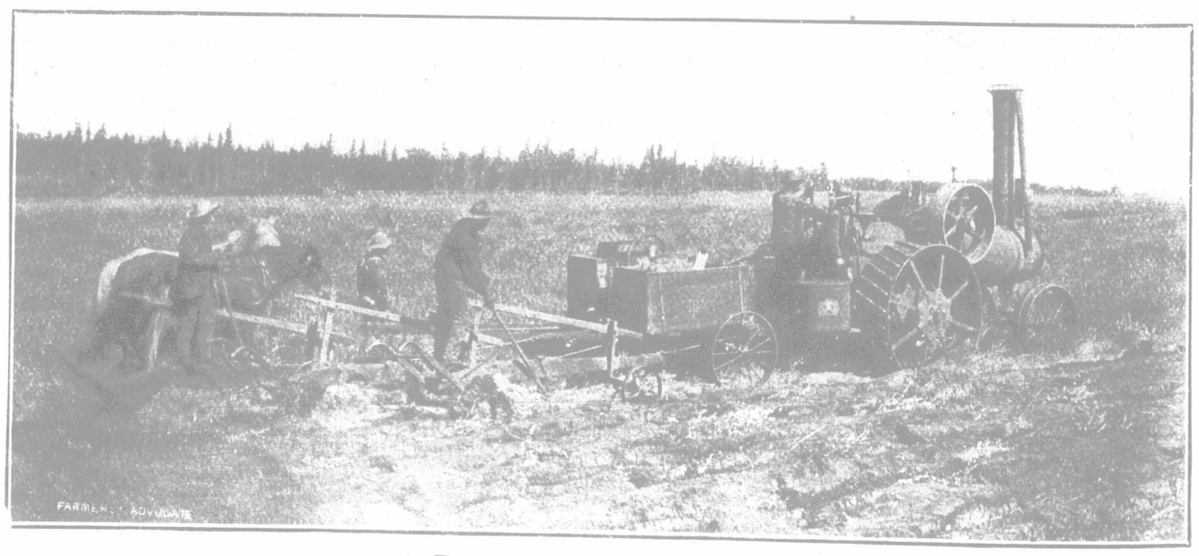
When considering the above figures, it should be taken into consideration that the samples that were examined were taken from car lots exceedingly foul with noxious weed seeds, and were representative, perhaps, only of car lots that are graded 'rejected' on account of weed seeds. The information is intended to present some data as to the prevalence of the various kinds of weeds.

It will be noted that out of the 58 car lots from which the samples were taken, eleven were from shipping points in the province of Saskatchewan some of which are in relatively new districts.

The farmers of the western provinces are well able to form their own opinion as to the amount of losses that accrue to them individually and collectively on account of the prevalence of noxious weeds. Individual farmers with land in a weed infested locality are able to keep weeds under control only with large and continued expenditure of farm labor, unless the weeds in all the farms in the locality are kept under control. An acre of land infested with perennial sow-thistle in a locality of clean farms is a greater public nuisance than one hundred acres infested with perennial sow-thistle in a locality where all farms are foul with the same weed. It is much to the advantage of any farmer to be able to control and suppress weeds on his own farm. To be able to do this effectively and at a reasonable cost, he must have the co-operation of all the farmers in the district where he lives. It would seem

SASKATCHEWAN—*Continued.*

	Wm. Fleming	10	20	11	11	26	78
	Geo. Welch	10	18	11	12	25	76
	Wm. Welch	10	18	11	11	30	80
WOLSELEY— L. G. Bell.	W. P. Osler	10	22	17	10	20	79
	W. Scott	10	22	16	9	18	75
	H. Gibson	10	19	18	10	16	73
	Chas. A. Henson	10	20	15	7	20	72
	Frank Coles	9	10	17	12	17	65
	A. Johnston	10	8	16	8	22	64
SINTALUTA— G. Bell.	H. D. Partridge	10	20	18	12	19	79
	Jas. Ewart	10	19	15	6	20	70
	T. S. McLeod	10	18	5	10	20	63
MOOSEJAW— L. G. Bell.	Jno Bastado	10	22	15	10	21	78
	F. W. Green	10	16	17	11	20	74
	A. E. Green	10	21	16	13	8	68
	W. H. Erratt	10	21	4	12	18	65
INDIAN HEAD— A. P. Crisp.	J. H. Francis	10	24	20	13	20	87
	Geo. Gibson	10	23	16	11	21	81
	Archie Adair	10	20	15	11	22	78
	E. Skinner	10	22	15	5	23	75
	E. R. Boone	10	22	15	9	18	74
	T. Livingstone	10	23	14	4	21	72
	A. Dickson	10	19	15	9	18	71
	A. E. Wilson	10	20	15	5	20	70
FORT QU'APPELLE— A. P. Crisp.	Geo. Reed	10	17	18	11	20	76
	D. C. Newmaich	10	15	15	13	15	68
NORTH ASSINIBOIA— (Churchbridge.) Jno .A. Brown.	S. J. W. Taylor	10	22	14	7	23½	76½
	R. Fraser	10	20	16	5	20	71
	H. Amason	10	18	13	7	21	69
	M. Henrickson	10	22	10	3	23	68
	J. Einarson	10	11	17	7	22	67
CHURCHBRIDGE— Jno. A. Brown.	E. Minhinnick	10	8	16	6	27	67
	Robt. Turr	10	13	14	5	23	65
SALTCOATS— Jno. A. Brown.	Wm. Eakin	10	23	19	3	28	83
	W. R. Cowen	9	23	18	7	25	82
	R. D. Kirkham	9	20	18	8	25	80
	Thos. C. Love	10	23	15	6	25	79
	C. H. Partridge	10	24	15	2	26	77
	J. A. Kirkham	9	20	18	7	23	77
	F. Kirkham	9	20	18	7	23	77
	M. D. Barker	10	23	14	7	22	76
	Jno. Thompson	10	22	13	5	23	73
	Wm. Aim	10	15	17	6	22	70
STOCKHOLM— Jno. A. Brown.	Sakarius Strernquest	10	22	15	10	25½	82½
	Paulus Strowgun	10	19	15½	7	27	78½
	A. Nelson	10	20	15	8	25	78
	Stanley Yieny	10	10	12	8	24	64
YORKTON— H. McFayden.	Robt. Rowsay	10	23	15	14	23	85
	J. M. Clark	10	19	15	11	24	79
	F. W. Bull	10	18	17	10	21	76
	Peter Rowsay	10	17	15	10	19	71
QUILL LAKE— H. McFayden.	Mr. Jones	8	23	16	12	18	77
	C. Vokes	10	18	12	7	24	71
	Mr. Armstrong	10	10	11	14	14	59
	Mr. Ward	10	14	6	5	23	58
PRINCE ALBERT— H. McFayden.	Jno. Alston	7	23	19	12	23	84
	A. J. Rodgers	10	18	18	14	23	83
	A. Knox	10	20	17	10	23	80
	G. McBeth	7	23	16	11	21	78
RADISON— F. Coles.	G. O. Oles	9	22	16	11	23	81
	Goodrich Bros.	9	22	14	11	22½	78½
	Jas. H. Hamilton	9	21½	15	9	22	76½
N. BATTLEFORD— F. Coles.	K. G. Finlayson	9	23	16	10	24	82
	C. E. Hicks	9	22	15	10	23	79
	D. Strachan	9	21½	15	10	23	78½
	K. Finlayson	9	21	13	10	23	76
	A. Muir	9	21	12½	10	23	75½
	Wm. E. Fox	9	21	12½	10	20	72½
BATTLEFORD— F. Coles.	A. J. Brokvoski	9	20	16	11	20	76
	Chas. Draper	9	21	16	10½	19	75½
ROSTHERN— Thos. R. Brown	J. D. Caswell	10	25	18	10	21	84
	Peter P. Newfield	9	23	18	10	22½	82½
	Peter A. Hippner	8	23	18	8	24	81
	M. Funk	8	18	17	10	23½	76½
CARROT RIVER— Thos. R. Brown.	R. C. Grundy	9	8	16	5	22	60
SASKATOON— A. Switzer.	Wm. A. McTuroy	10	24	18	12	26	90
	M. Schmitter	10	23	18½	11	24	86½
	J. Caswell	10	21	17	11	24	83
	J. W. Tiffin	10	21	16	3	20	70
	E. S. Andrews	10	16	16	2½	19	63½
DUCK LAKE— A. Switzer.	Elie Malfair	10	23	21	9	24	87
	Willard Mitchell	8	24	17	1½	24	74½
	Jas. Cusiten	10	23	12	7	21	73
	C. Reefer	6	24	18	1½	27	70½
	G. B. McKay	6	24	16	1	17	64



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