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DEPARTMENT OF AGRICULTURE.

WHEAT.

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By A. C. MAGRUDER.

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TEST OF VARIETIES OF WHEAT.

BY A. C. MAGRUDER, AGRICULTURIST.

In Bulletin No. 8 of this Station will be found a resume of the work done in wheat by this Department for the season ending July, 1893. There will be found a description of the poor character of the soil of the farm and such other permanent characteristics as are likely to have a bearing on the results of the experiments, so that a repetition of these is not necessary. Bulletin No. 8 may be had upon application to the Director of the Station.

A necessary economy in the use of available funds caused some two hundred varieties tested in '93 to be dropped from the experiment of '94, thus leaving but fifty varieties in this year's work. Those varieties dropped from the experiment will be taken up next season as far as available funds will permit.

A careful study of the following table is earnestly requested: (See Nos. 3, 4, 18, 25, 26, 35, 37 and 38.)

TABLE SHOWING VARIETIES OF WHEAT TESTED DURING 1853-94.

Plot Number.	DESIGNATION.	Test of seed sown.	Planted.	Acre yield.						Weight of un-matured.	Weight of un-matured.
				Matured.		Not matured.		Weight of un-matured.	Weight of un-matured.		
				Manured.	Straw-pounds.	Grain-bushels.	Straw-pounds.				
1	Yellow Alabama	53.7	Oct. 4.	23.2	3624	11.6	1248	50	59.5		
2	Oregon	56	..	32	3330	11.8	1044	59.5	58		
3	* CERRELL	56	..	37.5	3024	15.2	1168	60	60		
4	* PANQUITS VELVET CHAFF	55.5	..	35.4	3396	12.8	1050	59	59		
5	Farquhar	55.5	..	31.2	3144	10	852	59	60		
6	Hybrid No. 9	57.5	..	24	2280	10.4	1008	61	60		
7	Earnhardt	55	..	32.8	2940	12	924	59	59.5		
8	Missouri	55	..	30.8	2760	11.2	1006	61	60		
9	Diehl-Egyptian	55.5	..	32	2760	11.2	1032	59	5		
10	Met'racken	55.5	..	32.8	3444	10.4	930	60	58		
11	Bordeaux	56	..	35.6	3216	9	876	59	59		
12	White Rose	52	..	29	3426	9.4	972	59	58.5		
13	Ontario	53.3	..	34.4	3432	11.6	888	60	57.5		
14	Michigan Amber (from Kansas.)	53.3	Oct. 5.	34	3336	11.6	984	60	57.5		
15	Michigan Amber (from Missouri)	53.7	..	35.2	3312	12.8	1152	60	60		
16	Ohio Swamp	57.3	..	30	3096	10.4	924	60	59.5		
17	Siberian	53	..	36	3384	11.6	1080	60	60.5		
18	* SILVER CHAFF BEARDED	54.7	..	33.6	3192	14.8	1224	60	60.5		
19	Missouri Blue Stem	53.7	..	31.6	3696	16.2	1560	61	59.5		
20	German Amber	57.7	..	35.2	3120	14.8	1320	58.5	59.5		
21	Mediterranean Red Chaff	57	..	30.8	2904	14	1248	61	60		
22	Ostery	56.7	..	34	3552	10.4	1228	60	58.5		
23	Shumaker Clawson	48	..	33.2	3480	11.6	1056	60	59.5		
24	Diehl Mediterranean	52.7	..	39	3672	11.2	600	59	59.5		
25	* NAME LOST	53.3	..	35.6	3936	9.2	648	59	59		
26	POWERS	53.3	..	34.4	3396	14.8	1392	59	59.5		
27	Deitz	55	..	32	3528	18	1728	59	58.5		
28	McGhee's White	52.3	..	30.8	3966	17.2	1044	58	58.5		
29	New Monarch	51.3	..	30.8	4044	16.4	2052	58	60.5		
30	Washington Glass	53.3	..	30.4	3180	17.6	1560	58.9	59.5		
31	Roger's Red	52.7	..	32.8	3204	14.8	1512	58.5	58		
32	Rural No. 5	53.3	..	34.8	3384	14.8	1512	60	60		
33	Centennial	51.3	..	36.4	4752	19.4	1668	60	59.5		
34	Triticum	52.3	..	28	3336	12.8	1320	57.5	59		
35	* NIGGER	53.7	..	36	3240	16.8	1344	61	61		
36	Sheriff	49.7	..	30.2	3372	17.2	1440	61	60		
37	* VELVET CHAFF	50.3	..	30.1	2784	15.6	1344	60	59		
38	* NEBRASKA	50	Oct. 6.	29.2	3000	18.2	1716	60	58		
39	New York Flint	54.3	..	32.4	3288	16.2	1140	59	58		
40	Scott	54	..	31.2	3006	14.5	1356	59	58		
41	Rocky Mountain	50	..	33.8	3936	15.6	1224	59	59		
42	Lincoln	50.6	..	33.6	3192	20	1704	60	60		
43	Michigan Wick	51.3	..	32.2	3012	18	1104	60	58.5		
44	Egyptian	53	..	32.6	3180	18.2	1788	58.5	58		
45	Little Red	52.2	..	33.4	3252	20.8	1752	61	60.5		
46	Fenton	50	..	27.8	3252	18.8	1656	58.5	58		
47	Hungarian	55.7	..	30.6	3150	20.6	1884	60	60.8		
48	Canadian Express	52.3	..	25.4	2766	17.6	1488	60	59		
49	Sibley's Hybrid	53.3	..	24.4	3068			57			
50	Lancaster	54	..								
51	Mennonite	50	..								
	AVERAGE			32.4	3281	14.4	1287	59.7	59.6		

ACRE WITHOUT MANURE.

The acre of wheat continuously on the same land without manure resulted as follows:

	1893.	1894.
Gross weight.....	2,055 lbs.	3,330 lbs.
Weight of grain.....	633 "	1,253 "
" " straw.....	1,422 "	2,077 "
" " bushel.....	54.66 "	59.80 "
Yield in bushels per acre.....	10.55	20.9

STABLE MANURE ON UPLAND FOR WHEAT.

No stronger argument for the use of manure on wheat lands can be given than the results of a test made last season and recorded in columns 5, 6, 7 and 8 of the foregoing table. Twenty loads of fresh stable manure (from horses) was applied to the acre and plowed in a few days before seeding. Otherwise the seed, seeding, etc., was the same as the unmanured plats.

The test of wheat soil sown to cowpeas to be turned under was unsuccessful, in as much as the peas could not be sown early enough to get a growth worth turning under.

TIME OF SEEDING.

The land was laid off in 1-24 acre plats and sown every Thursday from September 7, 1893, to January, 1894. The largest yield was from the sowing of Sept. 21st, and the yield generally decreased from the earliest to latest seeding; that of December and January yielding 4, 6, and 8 bushels to the acre as compared with 14, 16, and 17 bushels September seeding on unmanured soil, while the early seeding (Sept.) gave on manured soil as high as 38 bushels to the acre, and the late (December and January) seeding on manured soil yielded but 10, 14, and 16 bushels to the acre.

RECOMMENDATIONS.

Save your stable manure for the farm.

Sow wheat as early as possible after September 1st.

Put it "in the dust" if you have no rain.

An average of all the bearded and smooth wheats gave the bearded the advantages in yield of nearly two bushels to the acre. Sow bearded in preference to smooth wheats.

Look to the table for best varieties.