

1887.

5	2 in.	4 pecks	April 29	May 7	July 22	July 22	757½ lbs.
4	2 in.	5 pecks	April 29	May 7	July 22	July 22	877½ lbs.
3	2 in.	6 pecks	April 29	May 7	July 22	July 22	755 lbs.
2	2 in.	7 pecks	April 29	May 7	July 22	July 22	912½ lbs.
1	2 in.	8 pecks	April 29	May 7	July 22	July 22	877½ lbs.

Here, in 1886, we see that, whereas 4 pecks to the acre produce 20 1 bushels, 8 pecks produce only 15.2 bushels, but 7 pecks produce 24 bushels an acre more than 5 pecks, and not quite a bushel more than 6 pecks.

In 1886, the 7 pecks to the acre have it all their own way, and the full-seeding is the worst of the lot. We must not for a moment imagine that the difference of one peck of seed to the acre can account for the difference of 4 bushels between the two yields. There must be some occult reason, either the land, or the previous cultivation, or "something or other," as old women say when they cannot account for anything. I am a thin sower from the bottom of my heart, but long experience leads me to distrust on this continent less than six pecks an acre for *spring-wheat*, drilled, on good land in a high state of cultivation, and eight pecks on poor land badly farmed. If the managers of this station will go on with this course of experiment, for from twenty to thirty years more, they will, with care, probably arrive at some definite conclusion as to the quantity of seed suitable to their soil, their climate, and their exposure.

## DEEP AND SHALLOW SEEDING.

1886.

1	1½ in.	6 pecks	May 6	May 13	July 30	Aug. 6	1280 lbs.
2	2 in.	6 pecks	May 6	May 14	July 30	Aug. 6	1300 lbs.
3	2½ in.	6 pecks	May 6	May 15	July 30	Aug. 6	1220 lbs.
4	3 in.	6 pecks	May 6	May 16	July 30	Aug. 6	1208 lbs.
5	3½ in.	6 pecks	May 6	May 17	July 30	Aug. 6	1288 lbs.
6	4 in.	6 pecks	May 6	May 18	July 31	Aug. 6	1360 lbs.

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6	1½ in.	6 pecks	April 29	May 7	July 22	July 22	782½ lbs.
7	2½ in.	6 pecks	April 29	May 8	July 22	July 22	895 lbs.
8	3½ in.	6 pecks	April 29	May 10	July 25	July 25	687 lbs.
9	4½ in.	6 pecks	April 29	May 10	July 28	July 28	937½ lbs.
10	5½ in.	6 p cks	April 29	May 12	July 30	July 30	1030 lbs.

The trials of different depths of seeding, though not absolutely conclusive, yet, with one exception, are considerably in favour of deep-sowing. Although a great advocate for deep-sowing, I doubt if I should have had the courage to sow *spring-wheat* as deep as 5½ inches, neither do I think so great a depth necessary. In fact I doubt if the "Hoosier drill," with every possible appliance, could be depended upon for regularity of deposition at such a distance below the surface. Three and a-half to four inches are deep enough for fall-wheat, and 2½ to three inches for spring wheat.

Another point I should have liked to see cleared up: out of 100 grains of wheat buried 4½ inches and 5½ inches, how many came up? Unless the seed was very well dressed, I feel convinced that, out of the six pecks sown, at least half a peck, at those depths, never made its appearance. The difference between the time of appearing above the surface of the soil was not so great as might have been expected; for, whereas the grain sown one inch and a-half deep was up on the 8th

day, that sown five and a-half deep was up on the 13th day, a difference of only five days, which is quite immaterial.

I cannot say I should feel inclined to farm largely in Minnesota if the following account of the destruction of the experimental plots for testing the values of different sorts of grain is indicative of the ordinary accidents to which grain is heir in that state: Thirty varieties of wheat, eighteen of oats, and six of barley, were entirely destroyed by the flood of "chinch bugs" which swept over our grounds the first week of July, 1887!

The experiments on potatoes fail to teach anything, as the distance between the rows is not given, only the distance between the plants in the rows. At 13 inches apart, with 2,262 pounds of seed per acre, the crop was 262 bushels; at 12 inches apart, and 812 pounds of seed per acre, the yield was 237 bushels—only 22 bushels difference. The best of all was from the same quantity of seed, at the same distance—300 bushels an acre=8 tons imperial measure, which is a good crop, and one more often talked about than grown. In fact, the whole potato-crop was above the average, varying from 5½ tons to 8 tons an acre. Every thing above five tons is good. The seed for this experiment was treated in various ways, and, as usual, no one way turned out much superior to the rest:

1. Large whole seed; 2262 lbs. per acre!
2. Whole seed, with all the eyes cut out but two.
3. Large seed, halved lengthwise.
4. Large seed, halved cross-wise, butt-ends.
5. Large seed, halved cross-wise, seed-ends.
6. Large seed, quartered, butt-ends.
7. Large seed, quartered, seed-ends.
8. Large seed, cut in pieces containing two eyes each.

As far as yield in proportion to weight of seed goes—which has nothing really to do with profitable cultivation of grain or potatoes, any more than the proportion a crop of turnips bears to the two or three pounds of seed used—the plot No. 8 beat the rest out of the field, 551 pounds of seed producing 16385 pounds of crop, or 30 to 1. No. 1, with a ton (gross) or 40 imperial bushels of seed, only yielded 15,732 pounds of potatoes=6.9 tons.

*Haras*.—I guessed that this word had an Arabic derivation, and, at last I have run up against its origin. In the 17th century the Spanish kings established a royal breeding stud in Cordova, at *Al Haras*, the former post of the Moorish mounted body-guard. *Al*, I need not inform my readers, is the Arabic definite article. The word has nothing to do with *Harem*.

A. R. J. F.

## DAIRY-MATTERS.

The following is a translation of certain paragraphs in an address made by M. J. O. Chapais to the Dairymen's Association at their last meeting, at St. Hyacinthe, on the 11th January, 1888. (1)

*Of the relations of the Proprietor of a factory with his manager*.—It may be said with truth that the prosperity of a factory depends upon the skill of the cheese-maker who is at its head. The selection of a suitable manager, then, must be of the greatest importance, both to the proprietor of the factory and to its patrons. If the former understands his business, as indeed he ought, he will possess the qualifications necessary to enable him to choose a manager for himself. Should he, on the other hand, be ignorant of the business, he must exact from the candidate for the office a certificate not only of his capacity, but also of his trustworthiness. It is no good for a manager to be a good workman, if, at the same time, he is lazy, quarrelsome, sottish, whimsical; the

(1) Kept back until now by accident.

A. R. J. F.