TABLE IV

Row	Variety	Source of Seed	Seed Grown at	Calc. Tons per Acre	Averages of Weekly Analyses, May 8–July 29 May Sucrose	May Purity	June Sucrose	June Purity	July Sucrose	July Purity
1	Klein Wanzleben	B. P. I.[1]	Blissfield, Mich.	20.66	13.4	85.0	13.7	86.5	12.50	83.03
2	Alvarado	B. P. I.	Blissfield, Mich.	25.54	14.15	85.98	13.63	83.44	12.06	80.52
3	Klein Wanzleben Elite	B. P. I.	Klein Wanzleben, Germany	20.90	13.4	83.88	14.13	83.21	12.18	81.88
4	Dippe	B. P. I.	Blissfield, Mich.	18.28	14.05	86.15	13.63	83.66	12.40	81.51
5	Jaensch Victrix, 12844	U. E. S.[2]	Logan, Utah	18.52	13.34	84.68	12.80	81.90	10.78	79.29
6	Unnamed	G. W. S.[3]	.....	21.16	14.5	85.65	13.92	80.88	11.92	80.41
7	Unnamed	G. W. S.	.....	17.42	15.16	86.5	14.18	84.74	12.74	81.99
8	Klein Wanzleben	B. P. I.	Blissfield, Mich.	18.72	14.73	85.78	13.62	84.68	13.08	83.66
9	Alvarado	B. P. I.	Blissfield, Mich.	17.22	14.42	86.54	13.41	84.21	11.86	76.29
10	Alvarado	B. P. I.	Blissfield, Mich.	16.70	14.08	85.72	15.16	84.79	12.08	78.75
11	Dippe	B. P. I.	Blissfield, Mich.	16.12	14.52	85.15	14.75	84.67	13.62	84.35
12	Jaensch Victrix, 12844	U. E. S.	Logan, Utah	16.50	13.7	86.59	13.56	83.69	11.96	81.63
13	Unnamed	G. W. S.	.....	19.65	14.49	82.83	14.97	81.66	13.82	83.76
14	Unnamed	G. W. S.	.....	18.65	14.54	84.38	13.50	82.90	12.56	82.33

[1] Dr. Townsend, Bureau of Plant Industry.
[2] Dr. Harris, Utah Expt. Station.
[3] Great Western Sugar Co., Denver, Col.

purity, and normal sized beets in February, but were obviously harvested too late, as is seen in the April figures.

Here again, the beets were so irregular in quality that Coates became convinced it was very difficult to get pure beet seed, and the experiments were discontinued until this important point could be settled.

Most of the previous plantings had been fall planting, which is the custom in Louisiana, and for this reason there was not as much sunshine on the plant when it was approaching maturity as might have been desirable. In fact, beets planted in January contained practically as much sugar in May as did those planted in November. Several sporadic attempts were made in the next ten years, but these developed nothing new, though individual beets were found which gave 20 per cent of sucrose and over.

In 1920, C. E. Coates and A. F. Kidder repeated these experiments, using in this instance late spring planting rather than fall planting. The seed obtained by Kidder was certified to as being pure and true to type. The chemical work was done by Coates and his assistants, the agricultural work by Kidder and his assistants. The results were so exceedingly good that it is thought well to present them in a preliminary form. It must be distinctly understood that this is merely a report of progress. It is the intention of the authors to carry out these experiments over a term of years with annual progress reports.

AGRICULTURAL DATA

The certified seed were furnished by the laboratories listed in Table IV. A fairly uniform plot 42 ft. × 105 ft. was selected for this purpose. The plot was flat broken early in the winter and replowed, disked, and harrowed the 24th of January. Rows were laid off 3 ft. apart with a small middle burster and the seed planted the day the soil was replowed.

The seed came up to an excellent stand and the plants were given the first hoeing on the 25th of February. Other agricultural operations are recorded in Table V.

TABLE V

DATE	Kind of Operation or Work	Cost per Acre
....	Plowing, broadcast	$3.00
January 24	Plowing, disking, harrowing, bedding, planting	4.50
February 25	First hoeing	.40
March 7	Second hoeing and first thinning	2.40
March 17	Cultivated, one horse	.20
March 24	Hoeing and second thinning	2.40
April 4	Cultivated, one horse	.20
May 17	Cultivated, one horse	.20
June 28	Hoeing	1.25
	TOTAL	14.55

This cost does not include harvesting and is not exactly what one would find on a commercial scale, but making all allowances it should not be less than $15 or more than $20 per acre. While it was difficult to calculate yields on the small plots employed, they ran from 16 to 25 tons per acre. There should be no difficulty in reaching the former figures on a commercial scale. The low cost of cultivation is due to the fact that during this particular growing season there is very little trouble from weeds in Louisiana.

Table IV shows the variety, the source of seed, estimated yield, and analytical composition for the three months indicated. Weight of beets, 1.5 to 2.5 lbs.

SUMMARY

1—Sugar beets can be grown successfully in Louisiana, and presumably in the South in general. They can be matured during May, June, and July, and probably during March and April as well.

2—The quality of the beet seed is the vital point. Standard beet seed of high quality is now grown in the United States and would seem to be somewhat better than the best European seed.

3—The tonnage per acre in Louisiana is probably heavier than the average elsewhere, and the sucrose and purity are high enough for commercial purposes. The cost of cultivation is much less than in most beet growing sections.

4—A series of analyses not indicated in these tables shows that the beets after harvesting will keep a week or more without appreciable loss in sucrose or purity. These results are probably too favorable, but it is reasonably sure that after harvesting, beets in Louisiana will not deteriorate more during May, June, and July than will cane in Cuba during the same months.

5—Beets planted on January 24 are ready for harvest by May 8 and probably earlier, and may be harvested in good condition until July 27 and probably later.

American Welding Society Proceedings

The American Welding Society recently issued its first number of proceedings. Beginning with January 1, 1922, the Society plans to issue *Proceedings* monthly in convenient form. In addition to technical papers, the *Proceedings* will include news items and reports of the Society, local sections, the American Bureau of Welding, and the industry. Certain sections will be devoted to editorials, employment service, bibliography of current welding literature, names of new members, etc.

Chandler Medal Award

The lecturer on the Charles Frederick Chandler Foundation this year will be Dr. Edgar Fahs Smith, president of the American Chemical Society. Dr. Smith's subject will be "Samuel Latham Mitchill—A Father in American Chemistry." Samuel Latham Mitchill was the first professor of chemistry at Columbia College and first senator from the state of New York.

The lecture, which is open to the public, will be given on March 2, 1922, at Havemeyer Hall, Columbia University, New York, N. Y.