

# New Ulm Review

F. W. JOHNSON, Editor and Prop.

Wednesday, June 1, 1892.

## HOW TO RAISE SUGAR BEETS

Thorough Instructions as to Planting and Cultivation.

Seeds for Tests Can be Secured in Small Lots at the Review Office.

The development of the Beet Sugar Industry in Germany and France reads like a romance. All of this history centers around Napoleon, first consul and emperor of France. About 1800, when the ports of France were closed by Napoleon against all English vessels, the supply of sugar of the French people was entirely cut off, as all sugar previous to that time, and at that time, was imported from the British West India possessions or in British ships. The French people had learned to use sugar and could not give it up, so that, unless some means were found to provide sugar, great hardship would be caused.

Napoleon, with his characteristic energy, attempted to secure the manufacture of sugar from grapes, which were at that time, as now, a great agricultural product in France. It was proved that they possessed a great deal of sugar and that this could be secured from the juice, but it had not been shown at that time that the sugar in the grapes was not the same as the sugar in the cane, and that it would not replace the cane sugar. These endeavors to make the grape sugar take the place of cane sugar showed the great difference between them.

It had been shown a long time before that the beet contained sugar of exactly the same kind as the sugar cane, and Napoleon directed his Minister of Agriculture to attempt the manufacture of sugar from the beet, and he gave a vast amount of money for the experiments in this line. The beet at that time contained about five or six per cent of sugar. Under the favorable conditions made by Napoleon the amount of sugar increased in the beet by the careful cultivation which was given to them, and a great many factories were erected for the making of sugar from the beet.

As in all enterprises where experimenting has to be carried on to a large extent these factories were financial failures, and but for the liberal financial assistance given by Napoleon it is probable that the beet sugar industry would be in a languishing condition to-day. But as a result of Napoleon's wise and liberal policy the industry quickly became established, and by 1830 the manufacture of sugar from beets had become quite a large business, and to-day there are over 375 factories in France alone, and about 1365 in the world.

A vast amount of money has been expended in Germany and France, as well as other European countries, in experimenting upon the best means of raising the beets for manufacturing them into sugar. Now this industry is probably more thoroughly understood and more scientifically managed than any other business, and the money which has been expended in bonuses, etc., by these governments has been repaid more than a hundred fold. The lands used for the raising of beets in Germany were originally worth about \$50 per acre; these same lands are to-day worth from \$150 to upwards of \$350 per acre, and this increase is directly due to the production of beets.

The last congress, by provisions of the McKinley bill, have granted a bounty of 2cts. per pound for all sugar produced in the United States, and while this is a slight tax upon the consumption of sugar to-day, if the farmers will carefully experiment and determine whether or not they can raise on their lands good sugar beets, it will be but a few years until all this money, and vastly more, will be returned to them in the same way that it has in Germany and France and probably to a greater degree.

The manufacture of sugar from sugar beets is so profitable and the amount of sugar used in the State of Minnesota is so great that there is no question but that factories will be erected as soon as it is positively shown that the farmers know how to raise beets and will do so. There is room in the State of Minnesota for at least twenty-five or thirty factories; that will require an acreage for each factory of at least one thousand to two thousand acres of land.

The results of our work last year and year before show that the conditions over the State of Minnesota are as a rule favorable to the production of exceedingly good beets, but our results have so far not been full enough and complete; it is therefore the intention to repeat these experiments upon a larger scale.

In raising beets it is not the quantity which you can raise to the acre, but the quality of the beets which makes it profitable. To get the best results as far as quality of the beet is concerned de-

pends first of all upon the soil, but chiefly upon the cultivation which the farmer gives. Therefore, in your work this year with this seed, do not endeavor to get a large tonnage, but follow the instructions carefully so as to get the best beets.

Analysis will be made of all these beets and those having the largest amount of sugar are the most valuable for sugar making. In using this seed make a selection of your best soil adapted to this work, which can be described as follows: A mild, moist, loamy soil with a good quantity of sand in it, not swampy, but rather lying high, well drained, and which has yielded a crop of potatoes or corn or some grain. It is best to use land which has been cultivated during the past three years at least; older land than that will be equally good. Do not in any case plant the seed upon new land which has not yet raised a crop. If you have fall plowed land which you have worked over this year it is best to use that. Do not under any condition put stable manure upon this land, as it is a mistaken idea of our farmers that highly fertilized land is necessary. For sugar beets you want land that has not yet been fertilized at all. Land which has been plowed deep, say from nine to ten inches, is best, and it will certainly pay you, if you have such deep land, to prepare some. However, good beets have been grown during the past year upon land which has not been plowed so deeply.

After having selected land as described above, get it in a fine condition by harrowing, or as this seed will plant but a small strip of land, you might be able to spade it so that it will be in the very best condition, that is, where all the lumps are broken up and the bed is in the condition of a garden patch. Do not plant the seed, unless it should turn quite warm, much, if any, before the 15th of May, or at the time it would be proper for you to plant corn. The day upon which you put the bed in its final fine condition, plant the seed in rows eighteen to twenty-four inches apart, the closer the better, and if the land is moist to a depth of one-half inch; if the soil has become dry, put the seed in about ten inches deep. Plant the beets on a level, not in ridges, and cover. If the seed is planted too deep it will not sprout as well. Plant at the rate of twenty pounds to the acre. Either drop the seeds in the rows by hand or drill it in as freely as it will run. When the plants get to a height of about four inches thin out with a hoe or by weeding to the distance of four to six inches in the row, and then by hand weeding thin out all of the plants in each hill excepting the one strongest plant so that there shall be left one plant to every four or five or six inches. This, in case the soil is inclined to be heavy; if the soil is very light they can be thinned out to a distance of eight to ten inches, that is, one plant every eight to ten inches in a row.

Cultivate the soil very frequently so as to keep clean from weeds, and when the plants get to such a height, and the leaves become so large that further cultivation might injure or break the leaves, hill up around each plant and cease all cultivation. Direct tests by government stations in Europe and the best individual seed growers show that the amount of sugar in the beet is dependent upon the soil, climate and temperature, upon the amount of cultivation given. The more cultivation the richer the beets in sugar, the better the yield, the more uniform the size of the beets and the better the crop for sugar making purposes in every way.

The value of a sugar beet for sugar making purposes depends upon the amount of sugar it contains. Any established factory would contract to buy beets at a minimum price of \$4 per ton if they were fit for making sugar, and if the beets should contain as much as twenty per cent sugar they could afford to pay in the neighborhood of \$8 per ton. Every hour's cultivation given the beets after they have sprouted and are up, means a hundred fold yield in the results. For example: The seed if planted and the beets given no great attention, would probably yield beets containing as much as ten to eleven per cent sugar, but directly in proportion to the amount of cultivation given may these beets be improved to yield as high as twenty, or indeed twenty-five per cent sugar. Beets have been raised yielding as high as 25-4-10 per cent of sugar.

In harvesting the beets, run through between the rows with a potatoe lifter and then pick the beets out, cut the leaves off and about one-half or an inch of the crown. To sum up: Do not plant the seed on swampy land or low wet land; do not plant on land which you have recently fertilized; do not plant in wide rows as you do for stock beets; do not fail to thin the beets out early; do not fail to cultivate frequently; do not fail to hill up well at your last cultivation. Do not let the dirt fall onto the leaves while you cultivate. Do not plant the seed where the beets cannot get the sunshine. Sunshine makes sugar.

# CRONE BROS.

## ONE PRICE CLOTHING STORE.

"THE BITE OF A HUMBUG IS WORSE THAN A DOGS BITE, EOR A DOG GROWLS AND THEN BITES, BUT A HUMBUG BITES AND LETS YOU DO THE GROWLING." SO DO NOT BE HUMBUGED. YOU WILL NEVER HAVE ANY REASON TO COMPLAIN IF YOU BUY OF US. WE ARE NOW PREPARED TO SHOW YOU OUR WELL SELECTED ASSORTMENT of **SUMMER GOODS** SUCH AS:

### Flannel shirts, socks,

Underwear, Light Coats with Vests to match from \$1.50 to \$5.00. Black and colored ALPACAS from \$1.50 to 3.50

**IN STRAW HATS** WE CAN SHOW YOU A NICER LINE AND BETTER SHAPE THAN EVER BEFORE. IF YOU SEE THESE HATS, YOU WILL WEAR ONE, IF NEVER BEFORE INASMUCH AS THE CROWN IS LOWER AND THE BRIM STRAIGHT AND OF MUCH MORE WIDTH. THE PRICES ARE MUCH LOWER THAN LAST YEAR. REMEMBER OUR SALESMEN ARE ALWAYS PLEASSED TO SHOW YOU THE GOODS WHETHER YOU BUY OR NOT.

CRONE BROS,

# Klossner & Mueller

DEALERS IN

## Shelf Hardware & Farm Implements.

Wish to call the attention of the public to the fact that they sell the Hoosier Drills, the only drills with Grass Seed Attachment. Hoosier Spring Hoe Seeders, the only Spring Hoe Seeders in the market.

The Light Running Van Brunt & Wilkins and Buckeye Drills and Seeders.

Deere & Gale Disc Harrows. Johnson & Smith all Steel Harrows.

Also Scotch Harrows of all sizes. Owatonna Fanning Mills.

Fairbanks & Victor Scales. Glidden Barb Wire, best in the Market. All kinds of Wood & Iron Pumps. The famous Deere, Bradley and Norwegian Plows

Keystone Corn Planters and Check Rowers. Deere, Bradley & Norwegian Riding and Walking Corn Cultivators.

The Celebrated Fish Bros. & Weber Wagons, Climax & Racine Buggies and Carriages,

BUCKEYE & OSBORNE SELF BINDERS.

CROWN, OSBORNE AND BUCKEYE MOWERS. J. I. CASE ENGINE & SEPARATOR (AGITATOR). GAAR SCOTT ENGINES & SEPARATOR AND THE MINNESOTA CHIEF (GIANT) ENGINE & SEPARATOR.

THEY ALSO TRADE FOR AND SELL HORSES.

## F. H. Behnke, PIONEER

DEALER IN

Groceries, Crockery, Lamps, Fruits.

GOOD BUTTER.

NEW ULM - - - - - MINN.

Goods sold at Rock-bottom prices for cash. Goods delivered in any part of the city.

**WANTED. SALESMEN.** Local and Traveling. To represent our well known house. You need no capital to represent a firm that warrants nursery stock first class and true to name. **WORK ALL THE YEAR.** \$100 per month to the right man. Apply quick, stating age. **L. L. MAY & CO.** Nurserymen, Florists & Seedsmen. St. Paul, Minn. (This house is responsible).

# DRUG STORE

And J. Eckstein,

DEALER IN

DRUGS, MEDICINES, CHEMICALS Toilet Articles, Perfumery, Books, Stationery, Trusses, Supporters, Shoulder Braces, Crutches, etc. Paints, Oils, Varnishes, Glass and Artists' Supplies. Pure Wines and Liquors for medical purposes. Physicians' prescriptions carefully compounded at all hours of the day and night. Iver & Pond Pianos, Sterling Organs Band Instruments and other musical merchandise.

# HENRY CRONE

201 MINNESOTA STREET, N. W.

## CASSIMERES

Black Henriettes Bedford Cord Whip Cord Serges Bourette Stripes.

## PRINTS

Choice Dress Styles Indigo Blues Turkey Reds Shirtings

## GINGHAMS:

Complete Line of Imported and Domestic Novelties Dress Styles Staple Checks and Plaids

## WHITE GOODS

Swiss & Domestic Embroidery Laces and Lawns India Linen Mulls Piques

## UNDERWEAR

A Complete Line for Ladies and Gents

## SHIRTS

Laundried and Unlaundried White and fancy

## MY LINE OF

Groceries, Crockery & Glassware are all complete

BUTTER & EGGS bought for cash or taken in exchange at the highest market price.

# C. H. HORNBERG

THE LEADING

## Hardware and Farm Machinery

Dealer in New Ulm

has the largest assortment of Monitor Seeders, Shoe Press Drills, Harrows, several kinds of Breaking, Sulky and other plows, Sodbusters, Wagons and Buggies, different styles with steel and wooden axles, Davis and Wheeler & Wilson Sewing Machines, Wooden and Iron Pumps all styles, Deering Binders and Mowers and Standard Mowers, Buffalo Pitts Threshers and Engines, and Duplex Wind and Fanning Mills.

I have the largest assortment ever seen in New Ulm, and my prices are the lowest.

HORSES BOUGHT AND SOLD.

# Just Received

A BEAUTIFUL LINE OF

## Summer Millinery



And also an elegant line of

## SILK GLOVES and MITTS

IN BLACK AND COLORS AND AT LOW PRICES.

Please call and see before purchasing elsewhere. Mrs. B. Follmann

SPRING GOODS!

SPRING GOODS!

DRYGOODS, NOTIONS & GROCERIES.

## G. F. DONGUS

There you will find a new, nice line of goods and very low prices

LAUDENSCHLAGER BLOCK.