

to obtain seed will be given the address of parties having it for sale upon application to this department. Those having seed for disposal are urged to send at once the name of the variety, the price they ask for it, and the quantity for sale. The department has no seed for distribution this year.

#### PLANTING AND CULTIVATION.

The following directions upon this subject are kindly furnished me by Mr. Charles Eustis, of Fort Atkinson, who, as mentioned on a preceding page, grew forty acres of cane last year.

"Have the ground well manured and plow deep; do not 'cut and cover.'" Pulverize the soil by harrowing until it is as mellow as a garden. Mark the ground as for corn, only having the rows but three feet apart each way. If you prefer drilling have the rows run north and south. Drop the seed in the check with ten or twelve seeds in each hill. Cover with moist earth one inch deep. If a horse planter is used the seed will come up evener and quicker. Just as soon as you can see the rows two rods ahead start in with the cultivator. A two horse sulky cultivator made narrow is the best, having the shield set so as to throw the earth away from the hills. Do not wait until the cane is three or four inches high before you commence cultivation, for by that time the weeds and grass will be higher than the cane. Keep the cultivators going until the cane is about six inches high, working as near the hills as is possible. Now go through and remove with the hoe all weeds that the cultivator left. Thin to six or eight stalks or if the ground is *very* rich allow ten or twelve to remain. Remember that you cannot cultivate too much. Keep the cultivator in the field as long as you can drive a horse through the cane. When you are forced to stop work the leaves will so shade the ground that it will keep moist and no weeds can grow. If you follow these directions carefully you will be almost certain to raise a large crop of cane."

#### MACHINERY.

Fortunately for the farmer, competition is so sharp among manufacturers that poor machinery is rapidly being driven from the market. This department has not the facilities nor have we the time to conduct a series of experiments with the different mills and evaporators to determine the relative merits, but it is urged upon those in charge of our annual fairs to put all machinery on exhibition to the test.

Have half a ton of cane put through each crusher on exhibition and report the number of gallons of juice expressed.

The Madison manufactory, which is the only firm in the state making mills, I believe, has generously given a crusher for use by the department, and we feel that we have as good a mill as is now in the market.

#### EXPERIMENTS IN GROWING AMBER CANE.

At the meeting of State Cane-Growers' Association held at Fond du Lac last January, I was impressed with the conflicting statements which were made as to the soil best adapted to cane-growing, and the influence of manure on the quantity and quality of the syrup. After trying in vain to tabulate the reports and attain something like uniformity, the attempt was given up as useless, and it was agreed that those interested should conduct a series of experiments to settle these doubtful points. The directions for these experiments were to emanate from the Agricultural Department of the State University, and as many persons as possible induced to help perform them. Although the attention of the farmers has not been called to this experiment as it should have been, nevertheless forty-three have informed me, either personally or by letter, that they would aid in this movement. It is urged that others join in this movement and help in settling questions which must wait for answer until just this kind of work is done.

I ask, then, that each farmer who expects to grow cane the coming season, study the directions for the experiments as here given, and if he is willing to follow them, to send me his name at once, so that I may know how many are working in this line, and can record their names for reference in case it is desirable to send additional instructions or modifications of those given below.

Here is an opportunity for our farmers joining with the University Experimental Farm in work for the advancement of Agriculture in Wisconsin, and I urge that our cause fail not through lack of adherents.

#### DIRECTIONS FOR THE EXPERIMENT.

Select in the field where cane is to be planted three plots of ground, each containing not less than ten square rods and lying side by side. The ground should be as uniform as possible in its composition and fertility. Do not select soil where one end of the plot is sand and the other loam or clay. No matter which it is, but have it all of one character. Have the plots if possible long and narrow, say one rod by ten, or two by twenty, etc. The plots should lie