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VOL. II. MARCI

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MARCH 1897.

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NO. 1.

# The Misconsin Borticulturist...

Issued Montbly,

Under the Management of the

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State Iborticultural Society,

for the purpose of

Disseminating Horticultural

Information.

& Subscription Price Fifty Cents Per Annum. &

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The Wisconsin Horticulturist is a monthly magazine published under the management of the Wisconsin State Horticultural Society.

Its aim is the dissemination of horticultural information.

Terms: 50 cents per annum.

Payment of \$1.00 per annum entitles one to the magazine for a year and to a year's membership in the State Horticultural Society.

All subscriptions and business communications should be addressed to W. J. Moyle, Business Manager,

Madison, Wis.

All matter for publication should be sent to

MRS. MARY C. C. JOHNSON, Editor.

Baraboo, Wis.

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To the Members of above Committee:

You have been appointed to make observations in the localities where you reside, note changes as the season advances, note first blossoming of tree fruits, damages by frosts and droughts, acreages of fruits, and as near as possible give amounts received for fruits at your railroad stations. Give results in top working if it is practiced to any extent, make a short, concise report of the fruit business, whether it is on the increase or otherwise. Have you a local society? What is its membership? How many members have you in the State Society? Get your report in by January 1st, 1898. We like to hear from all our committees, as the reports interest the society.

> A. J. PHILIPS, Secretary.

## FRUIT LIST.

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## Pears.

Flemish Beauty, Early Bergamot, Keiffer.

#### Plums.

AMERICAN VARIETIES—De Soto, Cheney, Wolf, Rockford, Miner (if top grafted), Hawkeye, Fountain Garden, Wyant.

EUROPEAN VARIETIES FOR LAKE REGION-Abundance, Green Gage, Lombard, Field, Hudson River, Purple Egg, Moore's Arctic.

#### Cherries.

HARDIEST-Early Richmond.

KENTISH-English Morello.

FOR TRIAL-Wragg, Bessarabian.

#### Strawberries.+

FOR SHIPMENT—\*Warfield, \*Crescent, Enhance, Wilson, Parker Earle, Van Deman, Sandoval, Splendid.

FOR NEAR MARKETS—\*Bubach, \*Haverland, \*Greenville, \*Crescent, \*Warfield, Wood, Enhance, Jessie (on certain soils).

FOR HOME USE—Jessie, \*Bubach, \*Warfield, \*Crescent, Parker Earle.

FOR FURNISHING POLLEN TO IMPERFECT FLOWERING KINDS—Parker Earle, Jessie, Wilson, Wood, Enhance, Van Deman, Saunders, Capt. Jack, Rio, Wolverton.

LATE-Brandywine, Enhance.

EARLY-Wood, \*Crescent, Van Deman, Warfield, Rio.

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\*Note.—The best sites for apples, cherries, plums, pears and grapes in Wisconsin, are elevated limestone soils, not too rich, and free from untimely spring frosts, or places under the influence of bodies of water. Plant those kinds that are succeeding best on soils and sites similar to the one to be used; plant but few kinds, with different kinds near each other, rather than in large blocks, and thus secure better fertilization of bloom. To prevent injury by insects and parasitic fungi, spray and give good cultivation before July 1st each season.

#### A. J. PHILIPS, Secretary.

†Nore.—Those marked with an asterisk have imperfect flowers and should be planted near those having perfect flowers.

#### Grapes.

FOR MARKET VINEYARDS-Moore's Early, Worden, Concord, Brighton, Delaware.

FOR HOME USE-Moore's Early, Worden, Brighton, Delaware, Massasoit, Moore's Diamond, Lindley.

LATE KEEPERS-Wilder, Lindley, Vergennes, Merrimac, Agawam.

EARLY-Moore's Early, Early Victor.

WHITE GRAPES-Pocklington, Niagara, Green Mountain.

#### Black Raspberries.

Nemaha, Gregg, Ohio, Older, Kansas. EARLY—Palmer.

#### Red Raspberries.

Marlboro, Cuthbert, Shaeffer, Brandywine, Turner. For TRIAL-Columbia, Loudon.

#### Blackberries.

Snyder, Briton, Stone's Hardy, Badger.

#### Dewberries.

FOR TRIAL-Lucretia, Bartel.

#### Currants.

WHITE—White Grape, White Dutch. RED—Prince Albert, Victoria, Holland, Red Dutch. BLACK<sup>†</sup>—Lee's Black Naples.

## Gooseberries.

FOR GENERAL CULTIVATION-Houghton, Downing. FOR TRIAL-Red Jacket, Triumph, Columbus, Queen.

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†Grow best in shady places.

NAME.	SIZE.	FORM.	SHADED SIDE.	SUNNY SIDE.	CALYX	STEM.	CAVITY,
Antonovka.	Large.	Med. con. ribbed.	Greenish yellow.	Yellowish brown.	Partly open.	Short.	Yellow russet.
Avista.	Med. to large.	Roundish, conical.	Green.	Yellow.	Partly open.	Med., stout.	Broad, shallow.
Arabka.	Large.	Flat, conical.	Dark green.	Dark red.	Open.	Long, thin.	Deep, russety.
Charlamoff.	Large.	Flat, roundish.	Greenish.	Yellow, dark brown	Closed.	Long, thin.	Deep and russety.
Eureka.	Med. to large.	Roundish, flat.	Greenish yellow.	Dark red.	Open.	Short, stout.	Broad, shallow.
Fall Orange	Med. to large.	Roundish.	Pale yellow.	Brownish with dots.	Large, partly	Short.	Deep and narrow.
Fall Spitz- enberg.	Med. to large.	Round and conical.	Greenish yellow.	Crimson with dots.	closed. Closed.	Med. in length.	
Fameuse.	Med.	Round, flattened.	Pale red	Deep red.	Small.	Short, small.	Narrow, funnel like.
Golden Russet.	Med.	Roundish, oblate.	Golden russet.	Yellowish russet.	Nearly closed	Short, small.	Deep.
Hibernal.	Large.	Flat and round.	Dull red.	Striped red.	Large, closed,	Short, stout.	Broad, deep.
Longfield.	Med.	Flat, conical.	Light green.	Reddish yellow.	Half open.	Long, thin.	Deep, smooth.
Lubsk Queen.	Med.	Model.	Bright red.	Shaded White.	Closed.	Short, stout.	Deep, regular.
McMahan.	Large.	Round, conical.	Yellowish white.	Reddish blush.	Large, open.	Long, stout.	Broad, deep.
Newell.	Large.	Round, flat and conical.	Lemon yellow.	Orange blush.	Closed.	Stem short.	Deep.
N.W.Green- ing.	Large.	Round, conical.	Green.	Yellowish blush.	Mostly closed.	Med.	Large. russeted.
Oldenburg.	Large.	Round, oblate.	Streaked red.	Yellow and red.	Large, closed.	Short, stout.	Broad.
Patten's Greening.	Med. to large.	Round, oblate.	Waxen yellow.	Faint blush.	Large, closed.	Short.	Broad, deep.
Pewaukee.	Med. to large.	Round, conical.	Greenish yellow.	Reddish streaked.	Closed.	Short.	Shallow.
Plumb's Cider.	Med.	Round, conical.	Reddish green.	Green streaked.	Closed.	Short.	Narrow.
Raspberry.	Small.	Flat, conical.	Greenish yellow.	Carmine.	Closed.	Long. thin.	Deep yellow.

APPLES.

BASIN.	FLESH.	Use and V	Value-Sca	le 1 to 10.	SEASON.	TREE.	ORIGIN.
		Dessert.	Cooking.	Market.			
Deep, ribbed	Greenish, white, firm	5	5	8	Early Winter	Medium hardy	Russia
Broad, shallow	Very white	5	10	5	Winter	Hardy	Wisconsin
Ribbed, irregular	White and firm	5	7	5	Early winter	Med. hardy	Russia
Flat and irregular	Greenish and tender	4	6	5	Fall	Med. hardy	Russia
Broad, deep	Yellowish white	4	5	5	Winter	Hardy with age	Wisconsin
Deep and narrow	White, tender	6	8	5	Late fall	Hardy	Massa- chusetts
Narrow, abrupt	White and tender	7	7	6	Late fall	Med. hardy	Vermont
Narrow, small	Very white	10	4	8	Late fall	Hardy	France
Deep, round,	Yellowish white	7	5	8	Winter	Hardy	Massa- chusetts
open Broad, shallow	White	4	6	4	Late fall	Hardy	Russia
Ribbed, wavy	White, fine grained, firm	6	6	5	Winter	Med. hardy	Russia
Shallow	White, firm	6	4	6	Fall	Hardy	Russia
Small, abrupt	White, fine grain	6	10	10	Late fall	Very hardy	Wisconsin
Rather deep	White, tender	8	6	5	Winter	Hardy	Wisconsin
Small, irregular	White, tender	6	8	6	Winter	Hardy	Wisconsin
Broad, regular	Juicy, white	6	10	10	Early fall	Very hardy	Russia
Large, closed	White, firm	6	7	* 6	Early winter	Hardy	Wisconsin
Shallow, irregular	Yellowish white	6	7	8	Winter	Med. hardy	Wisconsin
Broad, deep	White, firm	5	5	5	Late fall	Med. hardy	Wisconsin
Narrow, ribbed	Greenish white	8	4	7	Fall	Medium	Russia

NAME.	SIZE.	FORM.	SHADED SIDE.	SUNNY SIDE.	CALYX	STEM.	CAVITY.
Scott's Winter.	Small.	Round, conical.	Dark, red, striped.	Yellowish red.	Closed.	Short.	Small, deep.
Tetofski.	Med.	Oblate. conical, round.	Reddish yellow.			Short, stout.	Narrow, deep.
Walbridge.	Small.	Flat, round.	Whitish yellow.	Pale red- dish green.	Small, closed.	Short.	Medium.
Wealthy.	Med. to large.	Round, oblate.	Yellowish crimson.	Dark red, striped.	Partly closed	Short, med., slender	Green, russet.
Willow Twig.	Med.	Round, conical.	Light yellow.			Short, slender	Narrow, deep.
Wisconsin Russet.	Med.	Round, oblate.	Yellow russet.	Dark russet.	Half open.	Short.	Broad, regular.
Windsor Chief.	Med.	Round, oblate.	Dull yellow.	Dull red.	Partly closed.	Short.	Regular.
Wolf River.	Very large.	Roundish, oblate.	Reddish white.	Pale green, yellow.	Open.	Very short.	Large, greenish.
CRABS.							
Transcen- dent.	Med.	Roundish, oblong.	Yellow crimson.	Red cheek.	Closed.	Long, slender	Open, deep
Hyslop.	Large.	Roundish, oblate.	Light red.	Dark red.	Closed.	Long, slender	Open, deep
Sweet Russet.	Large.	Round, conical.	Light yellow.	Dark yellow	Small, closed.	Long, slender	Broad,deep
Whitney No. 20.	Med. to large.	Round, conical.	Golden yellow.	Reddish crimson.	Partly closed.	Med., slender	Broad, deep
Gibb.	Large.	Round, oblate.	Light yellow.	Golden yellow.	A little open.	Short.	Deep.
Martha.	Large.	Round, flat.	Light red.	Dark, reddish.	Closed.	Med.	Shallow.
Virginia.	Med.	Round, oblate.	Light yellow.	Reddish yellow.	Closed.	Long.	Shallow.
Shields.			1				
Souland.					1		

## APPLES-Continued.

BASIN.	FLESH.	Use and V	Value-Sca	le 1 to 10.	SEASON.	TREE.	ORIGIN.
DASIN.	T 116511.	Dessert.	Cooking.	Market.			
Broad, deep	White, firm	6	5	5	Winter	Hardy	Vermont
Small, or'gated	White, juicy	5	7	6	Summer	Very hardy	Russia
Small. plaited	White, fine tender, juicy	1	7	5	Winter	Hardy	Illinois
Deep. uneven	Reddish, white, fine grained	10	10	10	Early winter	Hardy	Minnesota
Broad, shallow	-Yellowish, green, hard	5	5	7	Winter	Med. hardy	Unknown
rregular	Yellowish, white, firm	4	5	5	Winter	Medium	Wisconsin
Regular, broad	White, half tender	5	6	8	Winter	Medium	Wisconsin
Large, very deep	White, coarse	6	6	8	Late fall	Hardy	Wisconsin
Shallow,	Creamy yellow	6	5	5	Summer	Hardy	
Broad, shallow	Yellowish white	4	5	8	Early Winter	Hardy	
None	Mellow, tender	8	5	5	Autumn	Hardy	Wisconsin
Deep	Tender, white, juicy	10	7	7	Autumn	Hardy	Illinois
Broad. shallow	Rich, yellow	5	5	5	Autumn	Hardy	Peffer, Wi
Broad, shallow	White, firm	5	7	6	Late autumn	Hardy	Minnesota
Shallow	White, juicy	5	6	5	Late autumn	Very hardy best for top working	Russian wild crab Budd
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#### TREES AND SHRUBS RECOMMENDED.

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#### Evergreens.

FOR SCREENS AND WINDBREAKS-Norway Spruce, Balsam Fir, White Pine.

FOR HEDGES AND SCREENS FOR SHEARING-Norway Spruce, American Arbor Vitae, Red Cedar.

FOR LAWNS AND CEMETERIES—Norway Spruce for backgrounds. For groups—American Arbor Vitae, Hovey's Golden (with protection), Arbor Vitae Pyramidalis, Arbor Vitae Siberian, Arbor Vitae Juniper Excelso (with protection).

FOR SMALL LAWN DECORATION-Juniper Sucica Arbor Vitae, Hovey's Golden Arbor Vitae, Arbor Vitae Pyramidalis.

#### Deciduous Trees.

FOR CEMETERIES—Cut-leaved Birch, Wisconsin Weeping Willow, Weeping Poplar.

For LAWNS—All named above, and, in addition, Laurel-leaved Willow, Mountain Ash Oak-leaved, Mountain Ash American, Mountain Ash European, Maple Cut-leaved, Maple Norway, Kentucky Coffee Tree, Catalpa Speciosa, Elm American, Elm Scotch, Elm Weeping, European White Birch, American White and Yellow Birches, Linden.

#### Shrubs.

FOR CEMETERIES—Hydrangea paniculata grandiflora, Tree Lilac, Cornus Philadelphus, Spirea Japonica, Spirea Van Houtii, Wahoo (American Strawberry Tree), Exochorda grandiflora.

For LAWNS-All named above, and, in addition, Pur-

ple Berberry, Purple Fringe, Upright Honeysuckle, Weigelia rosea.

FOR SCREENS AND HEDGES-Upright Honeysuckle, Red-fruiting Berberry, English Buckthorn, Persian Lilac.

#### Roses.

TWELVE BEST VARIETIES HYBRID PERPETUAL—Paul Neyron, Mrs. J. H. Laing, Gen. Jacqueminot, Dinsmore, Marshall P. Wilder, Coquette des Blanches, Earl of Dufferin, Jules de Margottin, Vick's Caprice, Magna Charta, Prince Camille de Rohan, General Washington.

Moss, Four Best VARIETIES—Perpetual White, Salet, Paul Fontine, Henry Martin.

CLIMBERS—Prairie Queen, Russell's Cottage, Seven Sisters, Gem of the Prairie, Victor Verdier, Michigan Single (Rosa cetigera).

HYBRID CHINA—Madam Plantier, Madam Hardy. BRIER ROSES—Persian, Harrison.

#### Climbers.

Clematis Jackmannii, Clematis Henryii, Clematis coccinea.

#### Honeysuckles.

Halleana, Monthly Fragrant, Scarlet Trumpet.

## TO THE READERS OF THE WISCONSIN HORTICULTURIST, GREETING!

I have made a discovery: To become interested in a magazine,-READ IT!

If each of you will read all these pages as thoroughly and carefully as the editor has done, we venture to predict that you will say this is a good number!

Do not "skip" Prof. Taylor's timely and interesting paper because it is long, nor fail to catch the valuable suggestions with which Mr. Plumb's Notes abound.

As for Mr. Stickney's article on Strawberry Growing we hope you will not pronounce your editor either a "gold 'bug" or a "strawberry crank," if she says it is worth its weight in gold!

We have apples and berries, and fine granulated beetsugar with which to sweeten them, but alas! we lack flowers for a center-piece. Our floral articles were too late for this number. Be on the look-out for them next month.

We send this, our first magazine, forth into the world, very much as a mother sends her child to its first school, with a little pat of affection, a sigh of regret, a thrill of anticipation.

We thank you, one and all, for your helpful contributions, and especially we thank the retiring editors for their expressions of friendliness, and for the material so generously furnished. MARY C. C. JOHNSON.

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Through the kindness of Prof. Goff we are enabled to give our readers a plate of the beautiful Horticultural-Physics building recently erected on our University grounds. The building is unique, having some original features possessed by no other building in the world. It is an edifice of which Wisconsin is justly proud.

## STRAWBERRY GROWING-MR. WM. VON BAUMBACH'S METHOD.

The very successful strawberry growing of Mr. Wm. von Baumbach has caused much inquiry as to his methods.

Being his near neighbor and passing his plantation almost daily, I am quite familiar with his methods, and with his consent will state a few of my impressions.

I think the keynote to all his success is persistent, thorough PAINSTAKING, to do everything in season and in the best possible manner.

His soil is only fairly good, such as may be found on almost any quarter-section of average farm land,—stiff clay subsoil, surface rather a heavy clay loam, originally covered with a heavy growth of Oak and Maple; a strong soil but not easy to manage. He uses manure from the city stables freely, but not excessively, twenty to twenty-five loads per acre once in three years.

For these many years, more than three fourths of all his planting has been six rows of Crescent to three rows of Wilson, and his faith today is stronger in these than any other; still he tries most of the newer kinds.

Perhaps the more noticeable points of his management are: 1st, Early and careful planting on thoroughly prepared ground.

2d, Frequent, almost constant, cultivation. Light, fine-toothed cultivators are run after every rain, and about every seven days whether it rains or not, with very frequent hoeing and weeding, until new runners cover the row space; later, the runners are clipped to a line by a cultivator with an axle and two revolving discs in front. All weeds DIE YOUNG.

3d, His treatment of pickers. He employs only those of such age and responsibility as he can trust with a sixteen quart case to pick and fill, with the bottom course of as good quality and as well filled as the top. Every family represented by these pickers receives two quarts of berries each day for their own use, in addition to their regular pay. He is never troubled with strikes.

4th, He secures "top" prices and quick sales by filling every box HEAPING FULL. Nearly all his sales are to one commission house and it is very common in early morning to see five or ten retail grocer wagons standing before that store waiting for his team to arrive. Half of his load, or more, does not reach the sidewalk, but goes directly to these wagons.

He is annoyed by other growers and dealers gathering his empty crates and re-filling them, so much so that he now does not stencil them.

All these things are easy. Let us each try them one season. Perhaps we shall like them.

Mr. von Baumbach is planning to keep debt and credit the coming season and, as far as practicable, a comparative tally with some of the later kinds, the result of which he will give us at the close of the season.

J. S. STICKNEY.

#### THE SUGAR BEET.

## By Prof. F. W. Taylor of Nebraska.

The subject that I shall now speak about is the sugar beet, and the sugar industry. The sugar beet as a producer of sugar, and as grown for the production of sugar which shall compete in the open market, and in all markets, with cane sugar, is of very recent introduction. I had this particularly illustrated to me last year as I fell in with a gentleman whom I have known for a good many years, who was the manager of the first beet sugar factory in the United States, located at Chatsworth, Ill.

In speaking with him there was one particular question that I wanted to ask that he was able to answer, and that I now wish to call your attention to. In the first place I should say that as the contracts are at present drawn be-

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tween the sugar manufacturers and growers of beets, no beets are to be delivered to the factory unless they contain at least 12 per cent. of sugar. I inquired of this gentleman what was the percentage of sugar in the beets grown thirty or forty years ago, and he told me they felt very well satisfied if they got beets with a sugar content of five per cent.

The present condition of the beet which produces such a large per cent. of the sugar of the world is the result simply of very careful selection. The amount of sugar manufactured from the beet and sold in the markets of the world is entirely underestimated by the great majority of people. I am told on what I believe to be good authority, that forty per cent. of the sugar which comes into the United States to-day is beet sugar, and that would mean that about half of the granulated sugar that we use on our tables is beet sugar. Hardly a day goes by that some one does not say to me, "What is beet sugar like? Is it anywhere near as sweet as cane sugar?" I do not know how any one is to tell the difference between beet and cane sugar; chemists can not do it, nor can any one else.

In Europe the great beet sugar producing countries are Germany, Russia, France and Austria. Germany has particularly fostered the beet sugar industry, and has paid a very liberal bounty upon sugar produced and especially upon that exported, so that Germany produces much more sugar than any other country.

In Russia the price paid for beets by the manufacturers is \$3.75 per ton for the beets that contain at least 12 per cent. of sugar. Talking with a man who had grown a good many acres of them, I said to him, "How do you succeed with them? How profitable has it been?" He said, "You people over in America are growing so much grain that we can not get anything for our product here in Europe; I think we land owners would be starved to death if we had not had the money gained from the sugar beets."

But I presume you are more interested to know just what the result has been in the United States. The first beet sugar factory in all this great central country was built at Grand Island, Nebraska. The first one after the one which failed down at Chatsworth, Illinois, is the one that has been in successful operation at Grand Island, Nebraska, for about eight years. I might say that to build a factory such as is located at Grand Island costs about \$300,-000; at the time the factory was built it cost a little more than that.

The figures to which I wish to call your attention are these: I said that the price paid for the beets contemplated that they should contain at least 12 per cent. of sugar. The average sugar content of the beets at Grand Island was  $13^{6/10}$  per cent. There were no beets thrown out this year because of coming below the required standard of 12 per cent; many of them came up to 15 per cent. and higher, and in some special cases beets showed more than 20 per cent. of sugar.

The number of beets grown about this factory was 30,-000 tons. From the 30,000 tons there were made 5,000,000 pounds of sugar. There is something interesting to me in speaking of this immense amount of sugar, and figuring the probable amount taken to supply a State like our own Nebraska. We have a population of something less than a million, but figuring it in round numbers as a million, and allowing that each person consumes 50 pounds of sugar in a year, we should have to have five times as many factories in the State of Nebraska as we have now, each of them turning out five million pounds, in order to supply the State. In other words we supply 20 per cent. of the sugar used in our own State. If you multiply that by the number of States, taking into consideration their proportionate population, you will find that the figures are something stupendous, that the amount of money paid for sugar is an immense item, and that anything which tends toward keeping that money at home is going to revolutionize in a large degree the business of the country along that line. Now as to some of the facts about the average product: The price under which these beets were contracted was \$5.00 per ton, that is, provided

the State makes good a law which was passed two years ago, giving one cent per pound bounty for the sugar produced in the State. This law was declared unconstitutional, so that when the present contracts were made with the growers, it was that they should pay \$4.00 per ton, with the other dollar whenever the State makes good the one cent per pound bounty which it promised to pay. The average production per acre was about thirteen tons.

The average number of men employed in this factory during the campaign was 300, and the average price paid was \$2.00 per day; and the length of the campaign was about a hundred days in 1896. The factories run from 100 to 120 days, beginning as soon as the beets are ripe enough to pull, and continuing until after the holidays. During the past season this factory was kept open day and night and Sunday, from the time the first beet was put in until after the last one was run through, at an average cost to the company of \$600 per day. A large part of this labor is not skilled labor, but is labor which almost any intelligent man could do. There must always be a certain number of skilled mechanics and skilled sugar makers, but the great porportion of the labor hired is of a grade which makes it possible for people near the factory to earn this money and keep it at home.

Now as to the bounty and the relation of the bounty question to the growth of sugar beets: A law was passed in Nebraska four years ago to pay a bounty of one cent per pound upon all sugar produced within the State of a given grade. I should say, by the way, that all the beet sugar turned out is first class granulated sugar, no other grade is made. The beets are shoveled in at one end and fall into the sack at the other end as granulated sugar. The law under which the bounty was made payable was declared by the Supreme Court of the State unconstitutional.

Today there is practically no bounty law in Nebraska, but I suppose that the present legislature will make some provision by which this bounty, which was voted four years ago, will be paid during the period it was promised, which was five years, to those factories which have not received the benefit of the bounty, but are entitled to it. This law, as you will notice, contemplates the payment to the factory of one cent per pound for every pound produced of a given grade; but there is a further provision that it shall only be paid in case the factories have paid at least \$5.00 a ton for the beets. I think the general feeling is that the price of \$5.00 a ton is high, and that it would be better if the bounty were made so that a part of it at least would go directly to the growers of the beets. I think that a bounty law should provide that either all or a part of the bounty should be paid directly to the growers of the beets, and I think the factories themselves would be perfectly willing to accept such a condition.

There are in Nebraska now, then, only two conditions necessary to establish beet sugar factories. These conditions are first, we must find men who have capital, who are willing to interest themselves in the manufacture of sugar from beets; the second condition is that there must be, within a radius of a few miles of the factories, men who will grow beets at the agreed prices. These two conditions have been brought together in a manner that has usually been fairly satisfactory.

I do not think there is any doubt that in a very short time we shall be producing at least all the sugar which we need in our own State.

(The above is a part of the valuable address given by Prof. Taylor at the winter meeting of our State Society. The entire address will appear in the Annual Report.)

#### GARDEN SEEDS.

I have just received a most refreshing and restful publication, viz.: A seed catalogue without a single SUPERLA-TIVE ADJECTIVE, or a line of extravagant praise, this too from an old and reliable Boston house.

Are they behind the times, or do they think the supply of adjectives is exhausted?

Really what are the next generation of seedsmen to do

for adjectives? or, what concerns us more, how are we to keep our toes in touch with the earth and be guided by the present descriptions?

The different results from BEST, MEDIUM and POOR seeds are so great that some method of insurance would be helpful. How would this do? Buy now, next year's supply, so far as you can anticipate, plant a test sample of each and you have a safe guide for the following season. A further help is to test their germination. This is very conveniently done by placing them between several folds of moist blotting paper and keeping them in a moderately warm place. These precautions will be likely to save you dollars, possibly hundreds of them. S.

## BLACK CURRANTS.

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Among the small fruits none but Englishmen as a rule appreciate the value of black currants. With them, however, they are usually very popular for all cooking purposes and are wonderfully rich if properly prepared. For jam they should not be cooked very much in sugar as it makes the fruit hard and tough.

I have an English neighbor who grows this fruit very successfully. It seems that few Americans succeed in growing it well even when they try it. My neighbor grows them in the shade of a tall pole fence and claims they grow best in partial shade. Certainly his success warrants his conclusions both as to the fruitfulness and quality of the fruit.

Please mention the Wisconsin Horticulturist when ordering from advertisers.

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#### NORTHERN ILLINOIS HORTICULTURAL SOCIETY.

#### J. C. Plumb.

The thirtieth annual meeting of this Society was held at Polo, Ogle County, Dec. 9th and 10th, and was one of unusual interest, both local and general.

Polo is a city of 2500 inhabitants with two important railway lines, the I. C. and C., B. and N., making it convenient of access, with a people of more than average intelligence and culture, as well as discretion, as may be seen from the fact stated by the Mayor in his address of welcome, that during the thirty-two years of its city life it has had no legalized liquor traffic.

The lengthy program was fully carried out and the proceedings were practical and pointed. The meeting was held in their beautiful opera house, which was well filled during most of the sessions of two days.

The society was cordially welcomed by Mayor Perkins. President Barnard's annual address was full of good cheer. Secretary Hartwell's.able report showed that of the twentythree counties in the northern district only about one half were usually represented in the society and some never. He advocated taking the meetings where the local interest needed cultivating; a closer union with the Farm Institute work; and the organization of local Horticultural Societies in every county. Treasurer Woodward reported a balance of over \$200 in the treasury.

Under the head of "Small Fruits," D. J. Piper recommended the Brandywine, Bubach and Splendid strawberries, the latter better than the Warfield every way.

Much inquiry was made about the leaf roller worm on the strawberry and the only remedies suggested were spraying before the blossoms opened and burning over after the crop was taken off. Practical details of strawberry growing were discussed at length.

"The Mother in the Berry Patch" was a very suggestive paper by a lady of Rock Falls, which showed that there, as in some other places, the mother was often the key of success.

The Palmer was named as the best early Black Cap raspberry and the Older as best late. For red, the Turner and Cuthbert, with good words for the Loudon and Columbia; the latter for canning and as more hardy than the Shaffer.

L. R. Bryant, of Princeton, thought the North Star currant lacked size of fruit; the Fay doing well with him.

H. R. Cotta, of Freeport, on "Nursery Work and Pruning," advocated thinning the young fruit while small and illustrated pruning to the audience.

Mrs. Groh, of Dixon, also illustrated culture and pruning of the grape, showing her to be an expert in grape growing.

B. J. Wakeman, of Chebanse, furnished a very instructive chapter of experience in "Growing Plums," using as a stock the Marianna, the Miner and our native species—buds or grafts at two years old at the ground, preferring to have them root from the cion where he can; plants in the fall 10 by 12 feet, cultivates and manures well; cuts back some every year until they bear, to keep them stocky and low, and when they get old cuts back and grows a new top; sprays with copper solution ten days before they leave out and again after the fruit has set, adding London purple for the curculio, and saves half to two thirds of the fruit, enough for a crop, as he generally has to thin out before full size. Sprays several times and believes it pays. Soil is strong upland clay, and a dry summer the best for the crop.

Mr. Webster gets a good crop of Miner by top grafting some of the De Soto on the Miner to cross-pollenize it.

The apple crop was reported as large all over the State but not keeping well this winter. Mr. Moore, of Polo, sold his large crop of Duchess and Wealthy in Minneapolis at paying prices. Delegate from Wisconsin showed several varieties of our native hardy apples, which brought out much inquiry as being the outcome of one half century of trial, and promising something to help them out for hardy winter apples. The show of apples was good, especially by J. V. Cotta, that veteran of Carroll Co. Our Northwestern Greening, Windsor, Pewaukee and Plumb's Cider compared favorably with their Wagener, Spy, Dominie and Salome, which do not succeed in Wisconsin.

Among other valuable papers were "Improved Methods and Intensive Culture," by D. Herrick; "Experiments and Experimenters," by C. H. Sumner.

Prof. I. M. Bridgeman, of Polo, advocated class work in practical horticulture in the common schools.

Prof. J. C. Blair, of the Champaign University, told of the advance of our insect enemies and the means of their destruction; of the danger of the new San Jose scale which had been found in several places in the State but was being destroyed by heroic treatment.

Dr. C. C. Miller, of Marengo, furnished a very instructive paper on the relation of the honey bee to fruit growing, in the help given to pollenizing and crossing of fruits; they follow the birds in emptying the grape of its mature juices but never puncture a whole one, and are real friends of the fruit grower.

Mr. J. L. Hartwell, the efficient secretary, was advanced to the presidential chair and is to be with us at our winter meeting.

Northern Illinois has much in common with Southern Wisconsin and much can be learned from their experience, and no doubt given to them from ours, especially in the way of small fruits. They, like us, have lost most of their pioneers in fruit growing, but good material is plenty there as here, in the younger class, for renewed life and active work in horticulture.

Milton, Wis.

Please mention the Wisconsin Horticulturist when ordering from advertisers.

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# BOYS.

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## W. J. Moyle.

"As the twig is bent so is the tree inclined."

We are told that, in this age of great achievements, if we would make a success of life, we must specialize along some certain line of work. While this may be true, and applicable to those who intend to follow one of the many professions, on the other hand we think that this method of developing all our energies along one certain line, thus dwarfing the person and entirely casting into oblivion the desire of a glimpse into the many avenues of general information which go to make up the perfectly well-balanced man, should not receive the eulogistic praise that it is now commanding.

To the agriculturist there is no one department that has more to do, directly or indirectly, with the welfare and happiness of rural life than that of horticulture. Show me a home with well kept garden and beautiful lawns and I'll introduce you to a household of people who are enjoying some of the great pleasures of rural life.

Boys, as a rule, are not fond of gardening, for the very reason that in too many homes the garden is a mild sort of purgatory, where the boys are exiled to work when there is nothing that is of more importance to do elsewhere.

Here they whack around among the burdocks and catnip, or, with knees "in suppliance bent," weed mother's beets and onions. In this manner they are taught to believe that every thing pertaining to horticulture is of minor importance. They will probably specialize on live stock, or

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the raising of grain, which appears to carry more dignity with it.

However there is within the brain of most boys a keen perception for the beautiful in nature. How it has pleased the writer to know this, as he has observed the students receive their instructions in horticultural laboratory work during the past winter, in the short course of agriculture.

Here the subject is treated with the same importance and dignity that is attached to any other business. The growth and propagation of plants, as unfolded to them day by day, will be the means of creating within them a desire to beautify home surroundings. Thus one of the lost arts, in a great many homes at least, will again hold the honorable position it deserves. The pigs and chickens will be relegated to the shade, and in their place will be planted ornamental trees and flowering shrubs on green velvety lawns.

And in the orchards of such a farmer you may not find the golden apples of "Hesperides," but you will find the golden apples of health. The coming farmer will also never be guilty of requiring that the boys shall care for the garden while he talks politics or reads the newspaper, during the noon hour or on rainy days.

A well developed boy will make a perfect man, a perfect man will make a perfect state, a perfect state will make a perfect nation, a perfect nation will have a grand government. All these things depend on the perfect home, which horticulture, properly taught, will help to develop.

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#### TOMATOES.

As the time for sowing tomato seed is at hand, a word about varieties may not come amiss.

The following list is my choice out of the many varieties I have grown.

Atlantic Prize for first early,-smooth red fruit, in clusters.

New Stone, the best late sort, —fruit solid, smooth, free from cracks, a heavy yielder.

Ponderosa,—very large, solid, fine quality. I have had them weigh 3¾ lbs. but they do not keep well after being picked.

Crimson Cushion,—another very large tomato, smooth, solid, quality fine, very few seeds; every garden should have some for table use.

Ignotum,—smooth, red, not as good yielder as the New Stone.

Buckeye,-very showy, large, red.

Optimus,-smooth, bright crimson color, quality fine.

Mikado, or potato-leaf tomato,-large, fine flavor, heavy yielder.

County Fair, or tree-tomato,-solid, free from cracks.

Yellow Plum and Red Plum,—fine for eating raw, or preserving; plant a few for the children.

Peach Tomato, Rose, Yellow, and Purple, every garden should have a few for eating raw.

Do not put coarse manure on tomato ground; it makes them run to vines. Use phosphates or hen droppings, one large handful worked into each hill when transplanting.

L. D. BURTCH, Baraboo.

(Mr. Burtch is an experienced and successful professional gardener, and is excellent authority.)

#### WORDS TO THE WISE.

A word to the wise is sufficient.-Proverbs of Solomon.

TIMELY WORK.—Now, before the sap flows, is the time to prune our fruit trees. We can in that way thin the fruit and promote the vigor of our trees, as well as remedy defects in form. No labor in the orchard will pay better than judicious pruning, and now is the best time,—any day when the wood is not frozen. Don't delay until sap starts or leaves have grown. To do it then is robbing the tree.

А. L. НАТСН.

OUT OF BALANCE.—I recently bought and placed in my bins one thousand bushels of No. 1 oats. Three days later I sold a crop, grown on one third of an acre, for more than enough to pay for the oats. What is wrong?

SPECIALTY.

Up to date of March 8th eleven carloads of apples have been shipped in to Richland Center, which has a population of 2000. Wisconsin fruit growers need not despair of a market if they can produce the fruit.

In 1881 Chicago buyers paid Muskegon growers over \$23,000 for their berries, all of which were grown within six miles of the little city on the east side of Lake Michigan.

and the large the second to these stands

Over forty acres of strawberries are growing for the season of 1897 at Sturgeon Bay, and if successful will require a carload of berry boxes to market them in.

"Hardy as an oak" is what the catalogues say of the Hydrangea paniculata grandiflora, and the Madam Plantier rose. I think the catalogues judge wisely, for the oaks in our groves died last year, and so did our Hydrangea and our Madam Plantier roses. The dry summer of '95 followed by the hard winter of '95-'96 killed every rosebush, except a few mosses; in fact the only shrubs which survived were the lilac, the snowberry, the black currant, and a few flowering almonds. Our shrubbery was on a dry knoll with a southern slope.

## SPRING'S WORK FOR 1897.

## Editress of Wisconsin Horticulturist:

What have we learned in a year? How can we help one another?

The solution of the question, What shall we plant? would be worth millions to Wisconsin Horticulture. I would give \$200 to know what to graft and what to plant. The present season may bring some one variety of strawberry so far to the front that this knowledge might be worth \$500 to any one in the business.

The list of strawberries is already too large, yet we want to know whether to plant heavily of Brandywine, Wm. Belt, Clyde, Glen Mary, Aroma, Bissel, or ten other new kinds.

The question of Top Grafting is one of great importance. Every planter of apple trees in the Northwest we think would do wisely to plant one in ten of Virginia, Shields or Tonka Crabs on purpose to top graft choice half hardy kinds of BETTER QUALITY than the hardy ironclads. The Duchess is all right for cooking, but we want something for eating in season from July to June. Every one has his or her favorite, and most half hardy kinds can be successfully grown, top worked on a hardy body that has vigor and freedom from blight. The little Siberian crab is HARDY, but it tends to dwarf the tree and fruit; the Transcendent is subject to blight and hastens the maturity of a winter apple which is grafted on it; Whitney No. 20 grows too close a top and is not ironclad, hence is not the best; Duchess is hardy, but it has work of its own and is not as good a stock as the three I first named.

When we can get such good varieties as Bailey Sweet, Grimes's Golden, Jonathan and others, why not do it? Many times the success of this top-grafting has been proven. Now if any one has the other side to show up let him give some other plan that is better. But we want something better to eat than Willow Twig and Northwestern Greening.

Every neighborhood ought to have a live society, to talk, consult and do, yes and do the BEST.

GEO. J. KELLOGG, Janesville, Wis.

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#### SOME ITEMS ABOUT PLUMS IN WISCONSIN.

Mr. Seymour, of Mazomanie, says he has some of the new Japan seedling plums, "Splendid" and "Gold" now growing. We shall be pleased to hear of their success as well as the other Japan plums planted so widely. This season will give them something of a test in Wisconsin. Messrs. Hatch, Bingham & Co. have about 100 trees of Abundance, Burbank and Willard due to fruit this summer on their lands at Sturgeon Bay. Besides this they have about 15 acres of European varieties planted lately, which makes the largest plum orchard in Wisconsin.

#### A SUGGESTION.

Members of Horticultural Society:

Wouldn't it be better for the meetings of the Horticultural Society if all the business of the Society should be done by the Executive Committee?

It seems to me if our meetings could be free from the dry details of managing the Society and be devoted to practical and entertaining subjects and discussions, they would be far more pleasant and popular.

I also believe that the business would be more likely to be well done by the Executive Committee alone than where we all take a hand in it.

Let's discuss this at our next meeting.

Yours cordially,

#### А. L. НАТСН.

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In the Massachusetts Legislature there has been a sharp fight over the appropriation for the extermination of the gypsy moth. The people in the infested district are pleading for relief, while many in other parts of the State do not see the necessity for giving \$150,000 for the purpose. The Senate has refused, 22 to 7, to cut down the \$150,000 to \$100,000, and the prospect is that the large sum will be appropriated. The commission wanted \$200,000.

#### SECRETARY'S ANNOUNCEMENT.

All who wish to become Life Members of the Wisconsin State Horticultural Society, can become such by paying to the Secretary \$5.00; the present annual members can become life members by paying an additional \$4 at or before the June meeting, 1897.

A. J. PHILIPS, Secretary.

#### BUSINESS ANNOUNCEMENT.

To the readers and friends of the Wisconsin Horticulturist:

To swap horses in mid stream Abraham Lincoln considered a very dangerous practice. In accepting the position of Business Manager of this periodical the writer has been impressed very vividly with the truth of the old saying, and were it not for the friendly words and encouraging letters from the foremost horticulturists in the State he might well hesitate and doubt the advisability of any attempt along this line. But with such a backing and impelled by an ardent desire to do the very best we know how for the Society, and by so doing subserve the best interests of the State at large, we would like to say that we are in the field for business, having forded safely, after the customary delay caused by such undertakings.

With the work of the previous year before us, and the accumulated wisdom of the Managers for counsel, to make the magazine less helpful than its predecessor is a thought that cannot be entertained for a moment.

With the subscription price reduced from \$1.00 to 50 cts. we ought to double our subscriptions during the year.

As an incentive to get our horticultural friends to do a little missionary work for the magazine all new subscribers will be entitled to either one of the following premiums by mail: Three grapevines, 1 Worden, 1 Massasoit, 1 Diamond, or six extra large gladiolus bulbs. These are Wisconsin grown and are exceptionally fine; many choice named varieties are included in the mixture.

For every club of five the getter up will be entitled to ten of the beautiful bulbs.

Address all communications regarding advertisements and subscriptions to

W. J. MOYLE, Business Manager,

Madison, Wis.

## EXTRACTS FROM THAYER'S BERRY BULLETIN.

In preparing ground for the garden, carefully consider the condition of the soil and the needs of the plant.

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Fertility is plant food and the soil must contain nitrogen, potash, phosphate, humus and moisture in liberal quantities to fully supply the needs of the plant.

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Good barnyard manure, worked into the soil, and wood ashes applied as a top dressing, will supply these needs.

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Not only must the soil contain these food elements, but they must be thoroughly mixed and incorporated in the soil to become available as plant food. Therefore, let the ground be heavily manured and every square inch for a foot in depth well pulverized.

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The surface should be smooth and even and if soil is very loose and light roll the ground to make it firm and compact.

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#### ADVERTISING RATES FOR WISCONSIN HORTICULTURIST.

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