

State Agricultural Journal.

VOL. 1.

RALEIGH, N. C., SATURDAY, JUNE 14, 1873.

NO. 17.

State Agricultural Journal.

E. T. FULGHUM, Conducting Editor and Prop'r.

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THE FIRST-BORN.

Tread reverently, this is a holy place!
A soul this moment here begins to be—
A spirit born to live eternally:
Speak low! commences here a human race;
An infant-man, God's image on his face,
In life's rough journey takes his first degree,
Opens his eyes, ah! not the end to see,
Only Omniscience all that path can trace.
Softly in whispers; there a mother lies,
The dew of youth upon her, yet so pale!
She folds white hands, and looks, with upturned eyes,
To her Deliverer, seen as through the veil
Of this hour's weakness; still, her full heart tries
For thankful utterance, though words may fail.
—Scribner's.

Department of Floriculture.

C. B. DENSON, Editor.

Osage Orange Hedges.

We surrender a part of our space this week to consider the use of the Osage Orange (*Maclura aurantiaca*) as a hedge, on account of the interest in the subject, and the inquiries recently sent to the JOURNAL. It will be understood that it is too late for operations during the present season, but it may be as well to discuss the topic now preparatory to autumn planting.

The Osage Orange, or Maclura, is a native of Missouri and Arkansas, and in that region may reach the height of sixty feet, while it may be grown in less dimensions all over the belt of country that extends northward even to the shores of Lakes Erie and Ontario. In the farther north, however, it is planted on poor ground to avoid winter killing of the late-formed young growth. If allowed to grow as it may list, in ten years from the seed trees may be obtained of twenty-five feet in height, with an equal diameter to the sweep of the branches. An interesting peculiarity is its method of branching, downward, upward, and laterally, and the roots have the same peculiar mode of development. The foliage is yellow-green, bright on the surface, not unlike that of the orange, with leaves single and alternate, and distinctly pointed. If trees with pistillate blossoms are planted near the staminate, fruit is produced similar to the orange, and very conspicuous, but unfit for food. The plant is a handsome lawn tree, and valuable for its rich and many effects in landscape gardening. Perhaps its chief defect lies in the fact that it is so late in putting forth its leaves; but there is a partial compensation to be found in the tenacity with which it resists the attacks of the frost of autumn.

It is remarkable that the extraordinary parallel to the character of the vegetation of the Southern States which Japan presents, is borne out in the case of the Maclura, as that country has just given us a new species with trilobed leaves, hence termed *M. trienspidata*. It is curious that our Maclura, when first carried to England, was supposed to be very tender, and it was sold to be used for the value of the leaf as food for silk worms.

But to come more directly to our subject. The need of a reliable growing fence has long been felt by the farmers of the country. The hedgerows of England do not only form the most poetical part of her landscapes, but as they do away with the ever-recurring expense and labor of fencing, they add no inconsider-

able amount to the wealth of Albion too. But our hot climate, open to the direct eye of the sun for months, and lacking the constant clouds and rains of the British Isles, is unadapted to the use of the varieties of thorn so valuable there. Two great plants supply our demands—the Gleditschia, or Honey Locust, in the North, and the Osage Orange in the South. In the West both of these are used, and also heavy screens of Norway Spruce and Arbor Vitæ are planted.

Wherever a high state of farming is found, hedges will be seen. They repay their cost, because they are more economical than fences, especially in a term of years, for a hedge will last a hundred years, and there are many good ones in the south now which are forty years old, while it is not reasonable to expect a post and rail fence to be really servicable after fifteen years. Hedges effectually keep out intruders, and are important to those who plant fruit orchards, or who desire their ornamental grounds to be secluded from impertinent intrusion. The southern side will furnish, by its protection from the cold winds and reflection of the solar heat, almost the conditions of a hot bed, and earlier vegetables may always be obtained by planting there; while on the northern side many very beautiful flowers may be kept safely in the shade, either planted in the ground or ranged in pots upon a low stand. Alpine plants may be so preserved that would die anywhere else in our climate. Lastly, and what concerns our department closely, hedges may be made exceedingly beautiful—verdant framework for the gay picture within.

How shall we proceed to obtain a good hedge of Osage Orange? First decide if it is to be of limited length and for ornamental purposes, or if it is to be a farm fence. If of limited length and for a comparatively small space, allow four feet for the hedge row, make the ground rich and deep, and throw two furrows together. It is desirable to have the row dug in winter, so that the first soil is naturally wet, put in the young plants in a slanting position, and protect with a little rough litter, to avoid throwing out by frost. Our friends in the sandy east will have no trouble. If it be an object to secure a fine uniform hedge, and the soil is doubtful or very poor, time and vexation may be saved by digging a trench two spades deep, throwing subsoil to one side, and the surface earth to the other—mixing the latter with well rotted manure. Now plant stakes in the direction you wish the hedge to run, and stretch a good garden line. Make a twenty foot rod, chalking off each foot. Place this near the line, removing as may be needed from time to time, and having half filled the trench, dibble in your plants opposite the chalk marks twelve inches apart, pressing the earth very light to the plant.

After all are planted, go up and draw the line, tramping them firmly, and in such manner as to give uniformity of direction. Then fill in until the short stem is barely out of the ground. If you plant in spring, it is well to defer filling in until the trench has received a good rain; then cover, and the young plants will be in better condition to grow vigorously through the summer.

It is folly to attempt to grow a hedge by planting seed on its site. The seedlings will be too irregular to be depended upon, and the cost in time and trouble will be far more than the charges of a regular ornamental nursery, where this article is always cheap. One year old plants will do, but No. 1 two year old plants are the best. As to the distance apart, if the soil is poor, they may be placed closer than if very rich, and the space may vary from eight to fourteen inches. The plants are usually sent in bundles of 100 each, sometimes repacked in bundles of 1,000 each, with the stem cut off four inches above the root. The plants appear to be dead, and sometimes look yellow and shrivelled, but they are only biding their time. Should an extensive hedge be required, you will probably wish to grow it of greater width and height. Manure any poor spots along the line. Break up the land for ten feet in width if space is no special object. Throw up an elevation along the line of eighteen inches; that will make your hedge effective against

cattle, at least one year sooner, than if planted on a dead level. To render it entirely safe and strong, a double line should be planted. With a strong dibble, that is iron shod; make your holes about one foot apart, keeping the line of stakes that you will drive to indicate the hedge line. Of course you will stretch a line and will press the earth around your plants well up to them. Set them deep. So much for the first step.

The hedge is now begun, and here is the point of failure. We are not willing to give the necessary labor to do justice to the work, and so it fails. The hedge should be thoroughly cultivated, and allowed to grow at pleasure all the first year, weeds being kept away, and the whole treated at least as well as a row of corn. We are through the first year now, and the plant has acquired strength to shoot up rapidly in the coming year. When spring comes, cut down the plant to the ground, leaving only any side shoots that may appear from below the surface. Cultivate just as you did the first summer, except that about the middle of June, you may go over the hedge, cutting back the perpendicular shoots to eight inches from the ground, but not touching the side shoots. This is a check to the vigor of the central shoots when performed thus in summer, when the vital powers are in great activity, and it is designed as such, to give the side shoots time to catch up, as it were. In either the November following or the February after that, cut off the plant to about five inches from the ground and shorten the side shoots very little, to induce them to throw out more of the fine lateral branches—any extra long side shoots may be reduced to uniformity with the others.

The next point after that must depend upon the height you wish to obtain. In poor or indifferent soils it may be allowed to grow six inches, and in good soil one foot yearly, until five feet are attained, for the usual hedge, or more for a very large and long one. But it is convenient to manage one of greater height than at the beginning.

The roots will spread, as *St. Ysaye* says. Certainly, if the plants are at all healthy, the roots will spread, but it may be remedied by running a coulter pretty deep within three feet of the row, about twice in a year. Always be careful to keep the top in order, cutting off with a good pair of hedge shears. As soon as the top gains the advantage, and begins running up to the original height of the Osage Orange, the side branches droop at once, and seem to give up their activity of growth.

Keep the shape conical, or nearly so; the immediate top may be a little flattened. If the hedge is cared for, the investment is good, and worth all the time and money it requires, strictly in a pecuniary sense as well as for many other reasons.

Its use is rapidly coming into favor, and the statistics of the subject are very interesting. An Ohio farmer, in estimating the cost says that for 100 rods, the plants cost him \$13.20, preparing the ground and setting the plants \$4. Total, \$17.20 per 100 rods. For three to five years after planting, the hedge will require as much labor as would be expended on a row of corn of equal length, after which it turns stock better than any other kind of fence. It is trimmed then roughly, with a mowing scythe, one man trimming 150 to 200 rods per day.

The statement of its abundant use in Delaware is well known. In one county (New Castle), containing only four hundred and twenty-four square miles, there are more than one thousand miles of hedge of Osage Orange, and some of these hedges, in spite of the ground they require, are used to divide fields where the land will bring \$200 per acre. Its use is also extending, as we know from personal experience, among the progressive farmers of North Carolina, and the day is not far distant, when thousands of miles will be set within our borders, and the old worm fence depart along with other equally unshapely and unsightly relics of the past.

Should any point remain unsettled, our friends are requested to write freely to the Editor, at Pittsboro, whose business it is to supply Hedge Plants with his Ornamental Stock.

June and Roses.

BY "DAISY EYEBRIGHT."

There is no sweeter word in our vocabulary than *June*, for it is the prototype of beauty, bloom and maidenhood.

To us it fulfills all the poet's promises and praises of the Spring—for Spring is but a myth in these Northern climes until June appears, and then we all rejoice that

"There is no price set on the lavish Summer,
And June can be had by the poorest comer."

June is *par excellence*, the month of roses—the month that seems freighted with their richly colored and deliciously fragrant flowers. How perfect they are! How replete with all that is lovely, rare and odorous! Can any other flower compete with the spicy Damask Roses, the creamy *Lamargue*, the exquisitely fragrant canary-hued *Marechal Niel*, the perfect *Madame Margottin*, the crested Moss, and hundreds of other varieties possessed of the rarest perfumes, and the most lovely hues Truly

"Roses are of royal birth,
Levellest monarchs of the earth!
Not the realm of flowers alone,
But human hearts their scepter own.
Mark what flowers the maiden's hand
Gathers for her bridal band:
What the sweetest influence shed
Round the grateful sufferer's bed:
What with holiest light illumine
The grief and darkness of the tomb."

The rose family embraces a large list; there are over eight hundred varieties of selected kinds, and there are twenty-six sub-families, each offering peculiar attractions, and particularly adapted to some one location.

A Rose Garden, containing but a few specimens of the richest varieties would afford a great amount of pleasure and delight to its owner. Few of us realize how much enjoyment attends the labor expended upon this kind of gardening, when every day brings something new and attractive.

Roses are divided into those which blossom in June, and but once; those which blossom twice, and sometimes thrice, such as the Remontants or Hybrid Perpetuals; the monthly Roses, which are the most numerous.

The June Roses are the most numerous, and the every location. Some of the Hybrid Perpetuals are hardy in most latitudes; others require some protection in the winter, such as sods or straw. All the monthly varieties are tender, but will live out in a southern climate, and they can be kept at the north in pits, or in boxes, packed closely in dry earth, and placed in a cellar.

The China and Tea Roses are profuse bloomers in their native climes, and grow to the size of large trees. In California they also flourish luxuriantly, and are covered with masses of flowers, opening fresh buds every morning which are perfectly beautiful, but the full blown flowers are not so attractive. A Rose Garden in California is a glory we of the Atlantic shores know little of; and floriculture in that golden State has but few drawbacks, and a great amount of enjoyment. Beds of *Bon Silene Safrano*, *La Pactole*, *Cramoise*, *Madame Bosanquet* and *Marechal Niel* can be relied on for a full supply of flowers from Christmas to the following November.

Roses require the richest of soils, are gross feeders, but if their wants are supplied, will fully repay all the care and labor expended upon them.

A rose bed should be dug down, at least two feet, and as much manure added as can be mixed with the soil. It must be thoroughly decayed, and thoroughly mixed in. Leaf mould is also their favorite food, and they also delight in mineral fertilizers; the debris of the rocks seems to contain elements which are essential to their growth. With such a fertilizer, I have made a Moss Rose grow six feet in one year.

The state entomologist of Missouri says that the only way to get rid of cut worms is to walk from the tree, looking at it from time to time from between your knees. When you are able to see the top in this way, your distance from the foot of the tree equals its height.

The Canadian way of measuring a tree, said to be as certain as it is grotesque. I walk from the tree, looking at it from time to time from between your knees. When you are able to see the top in this way, your distance from the foot of the tree equals its height.