

PRUNING AND TRAINING THE GRAPE-VINE.

BY LOUIS A. BERTRAND.

Every fruit tree, according to its nature and peculiar mode of vegetation, needs to be pruned to answer the expectations of the cultivator. The grape-vine, particularly, is cultivated in order that the grower may get from it the largest possible quantity of the best fruit. Now that would never occur if the fruit was abandoned to itself without being pruned, although cultivated with the most judicious care. In order to fully comprehend the principle upon which the pruning of the vine is founded, it is necessary to study the natural law of vegetation on a shoot which is not pruned. The first year the shoot produces a cane which remains green, in a herbaceous state, till the second sap; that cane bears one or several bunches of grapes to its lower end; in proportion as these bunches get ripe, the wood of the cane becomes more and more ligneous. At the fall of the leaves, the cane is provided from space to space and upon its whole length with buds, each of which, in the spring of the following year, will bring forth a new branch or cane. If it is not pruned, the yearling cane produces, indeed, a vast number of lateral branches, short and meagre, bearing a few small bunches of grapes in which you can scarcely find again the trace of the qualities proper to their species. Let us abandon that vine another year, and it will be totally ruined; it will become entirely barren, without any chance of re-establishment.

The pruned cane, on the contrary, retains only one or two buds to its lower end, three at most, if the vine is very strong. Having only two or three buds to nourish, it is able to provide a sufficient quantity of sap for them, in order that they may fully develop themselves and feed suitably every bunch which grows from their basis. A branch having once produced fruit cannot bear another crop; it may only bring forth buds which will become fruitful the following year. The fecundity of the grape vine is, in this manner, maintained forever by its pruning; without that pruning, it will cease immediately.

The above statements show, at once, the necessity of pruning the vine, its aim and the general rule which must govern it. There is one well authenticated fact in the fruiting of the grape—viz., that the finest fruit, the best, earliest and largest crops, are produced upon the strongest shoots of the previous year's growth. Therefore, the beginner must remember that the fruit always grows on young or new shoots, which start from the wood of the year preceding. This fundamental principle will serve as a general guide in pruning the vine, under all circumstances.

I will only mention here two modes of pruning—viz., the spur system, and the long pruning or long cane renewal method. The spur system is generally used in southern Europe, and in several California vineyards. The vines are trained free, without stakes or trellis, like dwarf apple trees. The principal stem is about sixteen inches high. The pruning is done in the months of December and January. The best wood of the vine is selected, and cut down to spurs of three buds. The spurs are in accordance with the age and strength of the vines. The old ones are pruned to eight, and even ten spurs, to bear from fourteen to twenty pounds of good healthy grapes. The above process is only practicable in semi-tropical countries.

Numberless experiments, made in the 73 departments of France extensively engaged in the grape culture, have conclusively established the fact that the long pruning method is far more preferable, in every respect, than the spur-system, but specially in northern localities. The new theory, ably propagated by Doctor J. Guyot, of Paris, is now considered by every experienced vigneron, as the most beneficial innovation of the present age. That gentleman is a great living authority. Dr. Guyot's method suppresses entirely any kind of spurs; it commits every year to a single cane, at least, the strongest and best shaped one, the office of bearing fruit. That cane, called the "fruiting-branch" is trained horizontally, near the ground, and attached to an iron wire or small prop of wood; all its buds, for the most part fruiting ones, will open in a proper time to produce a large crop. The fruiting-shoot should be pinched off with pruning shears, above the sixth leaf, two or three days after the blooming period. The other shoots, all intended for wood, do not bear grapes; they are attached to a stake and trained

vertically. In this manner they cannot deprive the fruiting-branch of any portion of air, nor of sunshine. Among these last shoots, the very best are selected for bearing fruit, and cut down yearly. The performance of the same operative details is thus indefinitely pursued. The reader can see, in the *Agricultural Report* of 1866, page 114, an engraving representing a vine, winter-pruned, according to the above rules. I recommend to every northern grape grower to try, next spring, this valuable process. They will find that the perfect ripening of the table grapes, as well as those for wine-making, depends more upon the heat radiated from the earth than upon that which comes from the sun. As for myself, I will certainly adopt it for my strongest seedlings of foreign origin, but with the following modification—instead of a single fruiting-branch, I will train two canes horizontally, one on the right side and the other on the left. Why? In order to get a double crop.

IS WINTER-PRUNING PREFERABLE TO SPRING PRUNING?

This interesting question has been considerably discussed by the European and American vine dressers.

The practice of early pruning the grape, in taking advantage of the whole period between the fall of the leaves—evidence of the beginning of its vegetative sleep, and the end of that sleep, is, according to my own notions and experience, preferable in all semi-tropical countries; but residing in a cold region and writing specially for the northern Utah grape growers, I humbly advise them to adopt the Spring pruning for the following reasons:

The shoot which is not early pruned, as soon as it feels the influence of the first Spring heat, conveys its whole amount of sap towards its top, the buds which open the first are those of the superior extremity of the branch, whilst the inferior buds remain sleepy. Now, in the occurrence of a late frost, the buds too soon developed would certainly be killed; but as, in all cases, they are to be cut down, their loss is no loss at all for the grape grower. Therefore, he must prune his vines, according to the local climate, in the first or second week of May, when the return of a treacherous frost is no more to be apprehended. The inferior buds, the only ones which are to be preserved when they are pruned, to produce the next crop, remain safe and can not be injured by the late frosts. As soon as they are pruned, these buds will expand; the sap, powerfully enticed by them, having no other opening, will cause them to recover the lost time. The young shoots, born from them, will produce grapes well constituted, which will bloom and form their berries as soon as those of the vines early pruned according to the custom too generally practised. Such is the theoretical explanation of late pruning; and such are, in reality, its beneficial results.

It is to be remarked that the above rules can be used for every kind of hardy grapes, as well as the tender ones. Among the latter the black mission grape unfortunately takes the lead in our gardens. I say unfortunately, because it is a common, coarse grape. Its true origin is unknown. But having been cultivated in California during nearly two centuries, that grape is too tender and so very late that it cannot fully ripen in northern Utah at least under its present management. It is to be hoped that it will soon be discarded. The black Hamburg and the Chasselas family, particularly the golden Chasselas, one of the most excellent table grapes, are far more worthy of the attention of our grape growers. The Chasselas are so hardy that they can be cultivated without any protection, in the coldest regions of France. Among the tender kinds, I desire to mention the Frontignan white Muscat, a delicious fruit; it is fully ripe about the middle of August in southern France; and on the 1st of September in Salt Lake City. The white muscat of Alexandria, more showy but less highly flavored than the last named, is also a most excellent fruit; it is a late raisin grape. They both deserve to be admitted in every garden.

Now, in order to practice successfully the long pruning process for every kind of tender grapes, the only thing to be done is to preserve the strongest and the best shaped shoot of every vine, and to cover it, according to the usual method, with three inches of earth, after you have cut down the other branches to the buds. In so doing, you will always get a large crop of your tender grapes.

SUMMER PRUNING.

After the blooming period, and as

soon as you see the berries succeeding the flower, the vine wants again to be pruned. If the bearing shoot was given up to the natural fire of its vegetation, the sap would only be instrumental in causing that shoot to grow longer beyond measure; the buds of the inferior portion of the shoot destined to produce the fruiting branches of the following year would remain weak and ill shaped; and the clusters of grapes would ripen imperfectly. Therefore the summer pruning has a double end; it must cause the sap to flow back so that the clusters might increase and ripen, and to assist the formation of fruiting buds for the next crop. The most propitious time to practice the summer pruning is pointed out by the state more or less forward of the vegetation, a state which depends on the condition of the temperature in the beginning of the spring. The intelligent vine-dressers suppress, at the time, the superfluous young shoots, in separating them from their basis which sticks slightly. I feel satisfied that every northern grape grower, in practising the above rules, will get better crops than by any other method.

Before closing my remarks, I would state here that I have been favored with an autograph note from the Hon. Horace Cafron, Commissioner of the Department of Agriculture, asking that my most promising grape seedlings shall be sent to him in order that they may be tried in the experimental garden of Washington.

Married:

In Salt Lake City, Oct. 24, 1868, by President D. H. Wells, SILAS L. JACKSON, from Kent, England, to Miss HARRIET ELLIS, from Sunderland.

[Mill Star, please copy.]

Died:

In Tooele city, of teething, Nov 7th Mary Caroline, infant daughter of William H. and Annie R. Kennington, aged 9 months and 16 days. [Mill Star please copy.]

In Salt Lake City, Oct. 30, at half-past 5 p.m., of a lingering illness of eight years, Sarah Ann, wife of Thomas H. Smart, aged 42 years and 9 months.

[Mill Star, please copy.]

At American Fork, Utah county, on the 18th of October, 1868, of inflammation of the lungs, Sarah Elizabeth, daughter of Henry S. and Harriet Backwalter, aged 3 years, 10 months and 10 days.

In this city, Nov. 9th, of fever, Helen Ann daughter of Charles and Jane Livingston, aged 5 years and 1 month.

In Lehi, Utah county, Oct. 27th, of inflammation, Lorenzo, son of John and Hannah Bone, aged 16 days.

[Mill Star please copy.]

SPECIAL NOTICE!

THE Members of the Seventeenth Quorum of Seventies are particularly requested to attend a meeting at President H. B. Clawson's, on Sunday, November 22d, immediately after the afternoon service in the Tabernacle.

Those residing at too great a distance to attend, will report themselves by letter to PATRICK LYNCH, Clerk.

By order of the Council. d304 s & w1

WANTED!

Two Hundred Bushels Wheat!

Delivered at my residence in the Nineteenth Ward, for which the highest Cash price will be paid.

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W. H. HOOPER.

NOTICE

IS HEREBY GIVEN TO ALL WHO ARE INDEBTED TO THE DESERET NEWS OFFICE for Subscriptions, &c., that Payment of the same after this date is to be made to GEORGE Q. CANNON, the present Editor.

April 1, 1868.

BRIGHAM YOUNG.

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NOTICE.

In the Supreme Court for the District of Utah.

In the matter of ABRAHAM WATERS, } In Bankruptcy.
Bankrupt.

THIS IS TO GIVE NOTICE, That on the 2d day of November, A. D. 1868, a warrant in Bankruptcy was issued against the estate of Abraham Waters, of the City of Salt Lake, in the County of Salt Lake, and Territory of Utah, who has been adjudged a Bankrupt, upon his own petition; that the payment of any debts and delivery of any property belonging to such Bankrupt, to him, or for his use, and the transfer of any property by him are forbidden by law; that a meeting of the creditors of the said Bankrupt, to prove their debts, and choose one or more Assignees of his estate, will be held at a Court of Bankruptcy, to be holden in Salt Lake City, before R. H. Robertson, Esq., Register, on the 30th day of December, A. D. 1868, at 10 o'clock A. M.

O. F. STRICKLAND, JOSIAH HOSMER,
Att'y for Petitioner. U. S. Marshal
And Messenger in Bankruptcy.
By Wm. P. APPELEY, Deputy.

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NOTICE.

In the Supreme Court for the District of Utah.

In the matter of HYMAN ELLIS, } In Bankruptcy.
Bankrupt.

THIS IS TO GIVE NOTICE, That a warrant in Bankruptcy was issued against the estate of Hyman Ellis, of Salt Lake City, in the County of Salt Lake, and Territory of Utah, who has been adjudged a Bankrupt upon his own petition; that the payment of any debts and delivery of any property belonging to such Bankrupt, to him, or for his use, and the transfer of any property by him are forbidden by law; that a meeting of the creditors of the said Bankrupt, to prove their debts, and choose one or more Assignees of his Estate, will be held at a Court of Bankruptcy, to be holden at Salt Lake City, in said District, before R. H. Robertson, Esq., Register, on the 7th day of December, A. D. 1868, at 10 o'clock A. M.

SALT LAKE CITY, November 7th, 1868.
R. N. BASKIN, JOSIAH HOSMER,
Att'y for Petitioner. U. S. Marshal and
Messenger in Bankruptcy.
By Wm. P. APPELEY, Deputy.

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ESTRAYS.

Heifer, 1 year old, brindle, crop off each ear, 28 on right hip.

Ox, large red, 9 years old, J HAGUE on left horn.

Cow, 3 years old, brindle and white spotted, has a calf.

Bull, 1 year old, red, white on belly and tail.

Bull, 1 year old, dark red, white on belly, rump and tail, branded T in circle on right hip.

Cow, 3 years old, roan, crop and slit in right and crop and underbit in left ear, has a calf.

Steer, 1 year old, brindle and white, upper and underbit in left and upperbit in right ear.

Heifer, 2 years old, roan, crop and 2 slits in left ear, illegible brand on left hip.

Steer, 1 year old, red.

Heifer, 1 year old, crop off right ear.

Heifer, 2 years old, dark red, hole and two underbits in right and upperbit and bit out of end of left ear, some white on belly and legs.

Heifer, 1 year old, red, white on belly, crop off left, upper half crop in right ear, branded A on left hip.

Cow, 3 years old, dark red, white on belly and bush of tail and on gambles, underbit in right and slit in left ear.

Cow, 5 years old, red, star in face, white on belly, crop and slit in left and slit in right ear, 2 on left shoulder and P on left thigh.

Steer, 1 year old, brindle, under and upper slope in right and crop off left ear, brand on left shoulder.

Bull calf, brown, no marks.

Heifer calf, red and white, no marks.

Cow, 7 years old, brindle, crop off left and underbit in right ear, = on left side, brand on left hip.

Bull, 1 year old, dark red, right horn droops.

Steer, 2 years old, dark red, crop off left and two upperbits in right ear.

Steer, 1 year old, dark brown, white on belly and tail, 2 upperbit in right and upper half crop in left ear, S W left hip.

Cow, 3 years old, white, roan sides, crop off left and slit in right ear.

Ox, 5 years old, black, white in face and on belly and tail, brand on right hip.

Cow, 4 years old, black, upper and underslope in left and hole in right ear, white in face, on belly, flank and tail.

Steer, 3 years old, red brockled face, white flank and tail, crop and hole in left and crop and slit in right ear.

Steer, 1 year old, red, B on left shoulder, crop, slit and underbit in left ear.

Cow, 9 years old, white and red speckled, C twice and W GIBSON on left horn, 2 or 3 brands on left hip.

Steer, 1 year old, dark red, brand on left hip, star in forehead, bush of tail white, slit in left ear.

Dark red yearling, crop and upper bit in right and underbit in left ear, bush of tail white, brand on left shoulder.

Steer, 2 years, red, white in face and on belly, H on right thigh, S on left shoulder, blotch on left hip, upper half crop in right and under half crop in left ear.

Cow, 5 years old, brindle and white, hole torn out of right ear.

Steer, 1 year old, red and white, illegible brand on right shoulder, two underbits and hole in right and upperbit and notch in end of left ear.

Steer, 1 year old, roan, crop and hole in right ear.

Stag, 3 years old, red and white, crop off left ear, cross on right hip.

Steer, 1 year old, red, no marks or brands.

Cow, 3 years old, cherry red, crop off right and half crop in left ear.

Heifer, 1 year old, dark red, star in forehead, white on belly, crop, upperbit and two underbits in right and underbit in left ear, J Q on left hip.

The above described stock will be sold on the 10th of December, 1868, if not previously claimed.

EDWARD PARTRIDGE,

Millard Co., Pound Keeper.

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