2nd. If properly ripened in a suitable

climate and in good season, they are easy to care by exposure to the sun.

3rd. That imperfectly ripened grapes will not care in the sun so as to make good

raisins.
4th. That the use of an artificial drier is only nee ssary where the grapes ripen very late, or where they do not attain a proper

degree of maturity.

5th. That differences in soils vary the period of maturity and in some cases of alluvial land, or in sandy deposits near to surface water, it is impossible to obtain any perfect maturity, no matter how early are

persore maturity, no matter how early are the crops on surrounding lands.
6th. That excess of vegetation, pro-longed during the ripening periods, retards the ripening of fruit and hinders the for-nation of succharine.

7th. That long pruning according to ordinary methods diminishes saccharine in the fruit and retards, if not, absolutely in Some cases, preventing maturity.

8th. That planting vines far apart and pruning long to low heads will retard ma-

turity or diminish saecharine.

9th. That increasing the distance between vines, fertilizing and excessively irrigating and long pruning should only he practiced where actual experience proves that the fruit may become perfectly ma-tured, and where raisins may be cured without artificial aid.

without artificial aid.

10th. That where vines as they grow older show diminishing crops and less saccharine, the remedy should not be in planting further apart, forcing with irrigation and fertilizers and long pruning, but in closer pruning with judicious use of fertilizers—especially potash.

1th. That other things being equal, vines planted closer together will ripen their fruit carlier and with more saccharine.

their fruit earlier and with more saccharine

12th. That vines on good, warm, well-drained land, not alluvial, where surface water in wells is found at not less than I water in wells is found at not less than 15
to 20 feet, will ripen sweeter and better and
earlier grapes than those on moist alluvials.

13th. That the size of grapes should be

controlled by proper pruning and fertilizing, and not by excessive watering.

14th. That three tons to the acre of

finely developed and ripened Muscatels will prove profitable to the planter; while ten tons to the acre of unmatured fruit, second and third crops, will glut the market with unsalable products.

with unsalable products.

I hope that these statements may awaken a fair and caudid discussion. There is certainly nothing of a personal nature in them and nothing that should cause unwarranted attacks on localities. If these principles are true, they are true in all distincts; if not, they are fairly open for attack,

Yours, respectfully, Chas. A. Wetmore.

Russian and Cancasian Vines.

A most valuable accession to the experimental department of the Natoma Company's vine-plantations at Folsom, has been procured by Mr. F. Pohndorff from the Emperor of Russia's renowned establishment of acclimatization and viticulture of Nikita in the Southern Crimea. Six of the most precious varieties, two of Cancasian and four of Crimean vines, are those of which, by imperial privilege, cuttings have been sent to Odessa, to go by way of London and the mail steamer from Southampton to Panama and thence to our port. The varieties are: Sapperavi, black Caucassian grape, white Gandjak, white Caucasian grape.

Crimean grapes: white Shabash, rose Albourlah, white Tashli, black Etchke Mernessi.

Another batch of Caucasian vines is expected for the Natoma Company and Mr. Charles Krug, from Transcaucasia, likewise obtained through Mr. Pohndorff, namely from parties having used either remedies.'

That those who have not read all that has caused this discussion may not be mystified as to the points I resintain, I will give a brief resume of them, viz:

1st. The Muscadel grapes are late ripen when the same Sapperavivine, of which French connoisseurs confess that it is the equal at least of the best French varieties for red wine. The cuttings had to be obtained from a call and a will be same Sapperavivine, of which French connoisseurs confess that it is the equal at least of the best French varieties for red wine. The cuttings had to be obtained from a call and the same Sapperavivine, of which French has caused this discussion may not be mystification. from a valley of mild temperature, and a competent man was sent to select them a hundred kilometres away from Tiffis, the ground in the vineyards around that town being frozen two feet deep. Two white Caucasian varieties, the Mzivnani and Razitelli will also arrive, said to be the finest of what Transcaucasia posses These different varieties, right from the regions that in times out of record furnished the wine to Europe, will be of great interest, and it is most fortnnate that they will be cared for in the best way, for the nnrseries and propagating establishment at the Natoma plantations have deservedly the reputation of being on a scale of magnitude compiled with the minutest and most scrupnlous attention to details, and Mr. Charles Krug is equally dedicating his attention to the important matter of rearing varieties which will give great renown to his new plantations both on the hills near his valley ranch and on his Howell Mountain Vineyard.

The Scale Bug.

(dustay Eisen in Fresno Republican.)

"We hear of much ill success with the common remedies for the extermination of scale on fruit trees. While, as a rule, scales are yet scarce in our county, still wherever it has made its appearance the horticulturists have failed to rid themselves of the pest by the application of the official remedies--lye and whale-oil soap. There are more than a dozen remedies which have been considered infallible, all containing more or less lye, borax, soda, whale-oil soap, coal oil and sulphur. We know of several orchardists who, after several years of spraying and washing with the above remedies, find that to-day they are as badly off as ever. Many of the trees sprayed with strong caustics had died at the same time as the scale, and the real gain has only been in preventing the scale from further spreading. For some time there has been a calm in the tide of new remedies, and we suppose that there is yet a good supply of caustics and soaps on hand. To during the winter months with the old remedies seems rather preposterous, judging by past experience. Out of the two classes pass experience. Our other trace chastes caustics, and soap and sulphur, we believe the latter to be decidedly the better, the sulphur having a tendency to destroy fungoids and insect eggs, and the soap acting through its general nastiness. Taking it all in all, we believe that orchardists should be very cautious in regard to the lye spray and in no case use more than one pound a gallon and a half water but rather less. spring, that is in April, May and June, ac cording to the season of warm weather, the young scale will begin to hatch and craw around. This is the time to attack them. If the orchardist cannot dispense with the If the orchards cannot dispense with the scop and sulphur mixture, we advise the addition of one pound of buhach to every forty gallons of liquid at the moment it is to be used. But we would dispuse with the scap altogether and use only buhach and water. One pound buhach and one-built callon eleverine (cruche), well stirred half gallon glycerine (crude), well stirred in a close vessel to the forty gallons of water, when used. The glyrerine serves to water, when used. The glyrerine serves to bind the volatile oil in the buhach, and keeps it on the insects until they die. This mixture, by far the most effective remedy maxture, by far the most effective remedy and the cleanest, goes a long way if sprayed with a torce pump and the San Jose or, better yet, the Milico nozzle; the latter, es-pecially to be used on grape vines for de-stroying the leaf hopper. At the proper time we will return to this subject. In the meantime we would like to hear

Guaranteeing Varieties.

There are some complaints, we bope not many, that vine-cuttings advertised and sold as particular and favorite varieties are not always what they are represented, or if they are in part, they are mixed. A vine yard owner who after examining carefully at the recent State Convention all the samples of wine made from new varieties of grapes, selected Cabernet Sauvignon, and contracted with a gentleman offering those cuttings for sale for several thousand, on examining the cuttings and the vines they were taken from, discovered that they were not what was represented. It is now admitted that they are mixed Cabernet Sauvignon and Cabernet Malbec. The cuttings are in the buyer's nursery and he wants the seller to send for them and take them ont of the ground at his own expense We mention this merely to show the necessity of accuracy in describing cuttings.

Remarkable Preservation of Howell Mountain Grapes.

Mr. Pohndorff writes as follows to the St. Helena Star: Herewith the remainder of a bunch of fully ripened white grapes in excellent state of preservation. The hest grapes were taken off the bunch and tested by a number of surprised persons yesterday afternoon. This bunch was picked yesterday, the 17th of January, by a plowman in the conrse of his work, from a young rooted vine, planted last spring on a slope of northwesterly exposure in Mr. Krng's Howell Monntain vineyard, 1,500 feet above the sea level. Picked in my presence and handed me, I heard the plowman say it was not an isolated case, but that he finds grapes on other vines there. This remarkable fact of the preserving properties of that rarefied mountain air, when, as yes-terday morning, the thermometer had been below freezing degree, speaks volumes for the success for grape growing on the Howell heights, and fertility there being already substantiated, probably, with other favor-able results involved in the above fact, the theory advanced for safety in the trial stage to plant early matnring varieties may be

RIPARIA CUTTINGS.

The superiority of California grown Riparia Cuttings over those imported from the East can be proved, and demonstrated to the satisfaction of anyone who may call at onr nurseries. Whereas a 15 to 20 inch imported cutting will frequently have only two or three bnds, those raised here, which we offer for sale, have from five to seven, and the wood is also better ripened. We do not hesitate to assert that

1000 of home raised Riparia Cuttings are worth 5000 of those imported,

and we can prove it from our own experience, and that of others.

We have now about 250,000 made, which are beeled in every day as they are cut, and have more to make. Our expenses in obtaining these cuttings (from the 3 year old vineya rd ofJudge John A. Stanly) are very great; but we offer them at the low rate of \$4.50 to \$7.50 per M., according to size. References given if desired.

COATES & TOOL.

NAPA, CAL

SEASON OF 1884!

VINES and VINE CUTTINGS

I take pleasure in informing my patrons that I shall be able to furnish, if called for soon, limited quantities of

GENUINE CUTTINGS

3 Of the following rare varieties:- FOLLE BLANCHE, COLOMBAR (Sauvignon vert) MATARO, CARIGNAN, CRENACHE, PETIT PINOT (Crabb's Black Burgundy) CHAUCHE NOIR, TROUSSEAU, MEU-NIER (same as the so-called Franc-Pinot of Mr. Scheffler-misnamed), CHARBONO, FOLLE NOIRE, MALBECK (same as Lefranc's so-called Cabernet-Malbeck) MOSELLE RIESLING, WEST'S WHITE PROLIFIC, MUSCAT of FRONTIGNAN, SEEDLESS SULTANA, etc.

The prices of the foregoing arc capricious and some of the varieties, particularly MATARO, MALBECK, CARIGNAN, MEUNIER and WEST'S WHITE PRO-LIFIC, are nearly all engaged at the present time. Price lists will be forwarded to those in-

quiring, as circumstances vary them.

Also, All the Well Known Varieties uch as ZINFANDEL, RIESLING, CHAS-SELAS, CHAUCHE GRIS, BERGER, MUSCATS (Gordo Blanco and Alexandria) FLAME TOKAY, etc., etc.

ROOTED VINES.

Particular care will be taken in respect to rooted vines to guard against infection by diseases. I can furnish rooted ZIN-FANDEL, MALVOISIE, VERDAL. FEHER ZAGAS, CHARBONO, etc; at varying prices, according to the demands of different producers.

Also a few thousand CALIFORNICA SEEDLINGS; RIPARIA SEEDLINGS all engaged.

RIPARIA CUTTINGS.

Having made necessary arrangements, I am prepared until January 15th to offer fresh RIPARIA CUTTINGS from the forests of Nebraska-car load already arrived in better condition than ever before received in this State, as follows:

36 INCH CUTTINGS at \$10.00 per M. 42 " " \$12.00 " "

Ten per cent off for eash within 10 days after receipt and acceptance of orders.

For those who desire shorter lengths I will furnish

10 to 15 inch cuttings at \$3.50 per M. 15 to 18 " " \$5.00 " " 18 to 20 " " \$6.00 " "

But I advise purchasers to take the long cuttings and prepare them to smit themselves. This is the cheapest offering of Riparia cuttings ever made in California. SEED.

I have fresh Riparia seed (from Nebraska) to offer at

\$2.50 per lb. for less than 5 lbs. \$2.00 " " " 5 lbs. and more.

Also, Fresh Californica Seed at \$1.50 per lb. for less than 5 lbs. \$1.00 " " " 5 lhe, and more.

CIRCULARS

will soon be ready to explain the importance of certain of the rarest varieties and will be furnished on demand. Address

CHAS. A. WETMORE, No. 321 Montgomery St., or No. 111 Leidesdorff St., San Francisco, Cal.

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