A Four-Page Supplement with the Farmer this Week.

WILLAMETTE FARMER.

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THE CASH SYSTEM.

The farmers of Oregon, of this coast, and elsewhere, are all alive to the advantages and and importance of dealing strictly for cash, and we have a few brief remarks to make on that subject.

We have tried the credit system, and are tired of it. A portion of our subscribers pay up punctually, but the most do not. We lose interest money, and meet with some losses, and the subscription list does not average over $2.50 for each subscriber, per annum, and this leads us to making the following change in terms:

Hereafter all renewals and subscriptions, where the cash shall accompany the order, can be paid at $2.50 per annum. All Subscriptions that are allowed to run thirty days over time will be invariably $3.00 per annum. This offer is made to induce prepayment of subscriptions, and will be applied only to those who pay strictly in advance.

All those who are receiving this paper are invited to remit the balance that will be due us on the 1st of January, and add $2.50 to pay for the year 1876. That will commence the year punctually, and place them on the prepiad cash basis.

A look at your tag will show you how much you will be indebted to us January 1st at the rate of 25 cts a month.

Remittances can be made by registered letter, currency can be sent by mail at its current value, or money can be paid to our local agents.

[For the Willamette Farmer.]

GRAPES—THEIR DECLINE.

THE CAUSES OF THEIR DECLINE.

That the cultivated grape is declining is only too true. The old Catawba is nearly run out, save in a few favored localities.—The grape for "the million," the Concord, is now, and has been for some time, declining. Very good authority states that "the old and reliable Concord is getting worse year after year, has mildew, falling leaf, rot," &c. The Isabella, too, is planted no longer in many of the States. The Iona, a very superior grape, is also becoming so diseased as to make planters hesitate to set it out any more. The Adirondac, Cassady, To-Kalon, Mottled, Rebecca, and nearly all of Roger's, Campbell's, Arnold's, Underhill's, Allen's, and other hybrid—from fertilization of vinifera—are rapidly declining in vigor, health, and productiveness, as well as in adaptability to various locations. The northern form or group of Labrusca, including many of our best table grapes, are becoming so diseased that their propagation must cease, for they are unprofitable. The northern form or group is less unhealthy, but even these are becoming unreliable.

Now, what are the causes of the decline of our grapes? This is a very interesting, not to say, a deep question. I will, however, try to answer it in such manner as I may.

The causes are various. Here are some of the most important ones—First, insects; secondly, bad locations; thirdly, improper treatment in cultivation, pruning, training, and manuring; fourthly, a want of judiciously selecting the right species and varieties adapted to our soil and climate. We will takes these *seriatim*.

There are, of insects which prey on the vine, some fifteen or twenty. Then there are several caterpillars, as also various mites. And what shall we say of birds? If you have a small vineyard, these pests take all your *sweet* grapes. I think, sometimes, that it costs more to grow grapes than they come to, unless you are away out in the dry, open hills, where there are few birds, and, as yet, few insect enemies to the vine, with a good market. But for home use we must have them; besides, with a little "home circle" to guard them, they *can* be grown.

Of locations, I need not say much, for most persons know where to set vines. Cold clay lands, springy, damp lands, and lands liable to receive a surplus of water from hills above them, should be avoided. Gravelly, stony, sandy lands, if not too much so, are good for vines. If on high, dry lands, an eastern, southeastern, or northwestern slope is good; a direct southern slope, if steep, in this dry, hot summer climate, is bad; a steep northern slope should never be planted in vines; but a gentle northern grade is one, in the Willamette valley especially, which has been quite successful with all kinds of fruits.—Here, the sun rises and sets north of us; hence we have, in summer, the morning and evening genial rays, but not the intense heat of noon; consequently, fruits in such a location—a long northern slope—are seldom sundried, burnt, or, as we say, cooked. I have had apples, pears, plums, but never grapes, scorched by the sun's heat.

Of improper treatment in cultivation, pruning, training, and manuring, a volume might be written. When we take into consideration the unnatural, not to say harsh, treatment our cultivated or improved vines have, and are receiving, need we wonder they are declining and becoming full of disease? It is true that by judicious cultivation, &c., we have improved the wild vines and brought them up to a standard we call a good one—a standard reached through means used to ends. The means are neglected, the end is lost. Hence our grapes are declining.

Let us look at the matter, for it is deeply important. Here, a vineyard is made on a high, dry ridge; is set out well, and of healthy, fine vines. The owner wishes to make them grow; he piles manure, often brush, around the vines; he runs his plow deeply near the vines, tearing up the spongioles; he cuts and slashes the young growth of wood; he pays no attention to the insects which prey on his vines—does not know them—he prunes his vines late in spring, and in summer too. While the vines are young they will grow and bear some under any treatment almost, but in four, five, or six years the course pursued above tells on their constitutions. The leaves begin to wither, and fall; the fruit does not ripen well; the vines look sickly; the vineyard is declining.

Now, nothing has been done wrong intentionally. But a wrong has been done. The means, good when properly used, have been improperly used. The end is, what? A mildewed, yellow-leafed, rotten-fruited, dying lot of vines. Who, or what, is to blame? The soil? No, that is good. The location? No, that is good. The vines, *per se*? No, they were naturally good. The manure? No, it was badly used. The cultivation? No, it was an abuse of cultivation. The pruning? No, only an abuse of the noble art. The climate? No, that is as it should be. Who, then, or what, is to blame? Alas! the *owner* is to blame, and nobody else and nothing else.

Now, we will take another case. A vineyard is set out on the same kind of soil, location, and vines. He uses a cultivator, plows shallow near the vines, and hoes around them—he does not prune his young vines the first season at all, nor drive stakes by them, nor make trellises, but lets the little vines grow undisturbed, making as much wood and leaves as possible, for the leaves are the lungs of the vine, and without them there would be no wood, no roots, no fruit. The first season we have no fruit, we want the vines to grow in root, branch, and leaf. The manure used is old, and well decomposed, and not put around the vine, to heat it and breed worms, but is thinly scattered over the whole ground, so that the spongioles can get enough, but not too much, of it. This vineyard is all it should be.

For wine, to have the natural flavor of the grape, no manure should be used, for the wine will taste of the kind of manure applied. For table use, or for market, manure may be judiciously used, as it increases the size; and large fruit sells better than small. But, for wine, small fruit is just as good; nay, better, because there is less water, more body, and the real flavor of the grape is purer, richer.

Species and varieties adapted to our soil and climate, if judiciously selected, will, other things equal, be a sure means of success. A species free from disease is greatly to be preferred. Varieties of the same species are often widely different, as the Northern Muscadine (native), though of the same species as the Concord (labrusca), is not near as good a grape as the Concord. An acquaintance with species and varieties, with their adaptability to our soil and climate, is a first requisition. Many a man, in selecting a lot of vines for his vineyard, has failed in procuring just such as his soil is suited to. The labrusca, æstivalis, and riparia, are the best species for us, in the Willamette. Varieties selected from these grow admirably here.

There is but one species of the foreign grape, vitis vinifera. Though, by seedlings, selections, cultivation, and crossing, there are now more than 2,000 varieties of the vinifera. All our best table grapes (foreign) are of this species, as Royal Muscadine, Chasselas Rose, Muscat of Alexander, Black Prince, Black St. Peters, Black July, Miller's Burgundy, White Sweetwater, Black Morocco, Rose of Peru, Flame colored Tokay, Black Burgundy, Black Hamburg, &c. All these grapes are, more or less, tender, from having been maltreated, pruned too severely, cramped, or compelled to grow in a circumscribed sphere, as in a hot-house, hot-bed or pot, till they are injured in constitution, and, hence, an easy prey to diseases, insects, changes of climate, &c. The same thing applies to our best American grapes.

Are there no other causes which have weakened and brought about such deterioration in both foreign and native grapes, as to, in many countries,—not so much here—make our faith in successful grape-growing rather weak? We think there are. The growing vines in hot-houses, of green or immature wood; the forcing and high-manuring process; and the excessive nursing and pampering with chemically prepared compost—an unnatural, artificial stimulant—which destroys by overdosing all the sap-vessels, rendering diseased the alburnum, —— buds, spongioles, and destroying the constitution of the plant. Away with your green-wooded, hot-house plants! No wonder our vines are declining. Shame to the shameless creatures who thus, for gain, ruin the noblest gift of Flora to man. Such hot-house plants are fit subject for insects to prey in, for diseases and the inclemency of the seasons to kill! And yet "we don't know what's the matter with our declining grapes."

I approve of trellises, or stakes, of judicious cultivation, pruning, manuring; of vines grown by cuttings of mature, healthy wood, in natural soil, without pruning or too much artificial stimulation.

A. F. DAVIDSON.

[For the Willamette Farmer.]

ORCHARDS.

MR. EDITOR: Upon your invitation to write on Orchard Planting, and trees, I will give my experience of a practice of over 20 years in Nurseries and Orchards in Oregon. My whole experience of orcharding is confined to that planted by H. Luelling and Wm. Meek and for the eleven years of 59 to 70 owned by J. H. Lambert and myself and now by Lambert alone, at once the oldest and perhaps the largest one in Oregon, near Milwaukie, on the banks of the Willamette. Most of the old orchards in the Valley originated from this orchard, directly or indirectly. In early days a large Nursery was connected with it. The orignal trees were hauled across the plains in boxes, growing, set in two wagons, in 1848. It contains about 60 acres and comprises a variety of soils; rich sandy bottom, good common soil, dry clay land and swail, the latter well drained. The whole was planted with all varieties of fruit, grown in Oregon, and for years cultivated in the highest manner by plowing and harrowing several times in a season and spading and hoeing around the trees, no crops, but some potatoes for the first few years were raised. In '54 I first worked on the place and for 2 or 3 years many trees were planted, some on new land and many in amongst those already growing, these stood 16x32 feet and we planted in rows so they stood 16x16 feet, and this distance I will recommend for new plantings. This gives distance enough as the trees must be shortened in and pruned heavily after each heavy crop, or they will break to pieces, and the fruit becomes gnarly. I speak of older trees, whose tops would come together.

We dug holes 4 feet in diameter and 20 inches deep, but this we found not necessary upon experience, Holes large and deep enough to receive the trees a little deeper than they were in the nursery, the the roots well spread out and the soil filled in amongst the roots and no tramping with the foot if planted in the fall, but late in the spring and the ground dry, a tramping after the hole is nearly filled is advisable. I hold fall-planting preferable to spring. In our winters the roots make a fine start and our rains settle the soil firmly about the tree, and if you lay the longest roots against the wind, it acts as an anchor and the tree stands firm. In the spring we must often plant late or in the wet. The first four or five years the ground should be well cultivated and no grain at any time sown in the orchard. Clover should then be sown and after four years again plowed up and cultivated for two or three years.

LOCATION AND SOIL.

A north slope is preferable, sheltered by a belt of timber in the east from the early rays of the sun on a frosty morning in time of blooming. If the natural warmth of the sun and not the strong rays thaws the frosted bloom, no harm is likely to come; then fruit is less burned by the sun and north sides of hills are generally the richest and the ground does not get so dry. These are important considerations in our hot and dry climate. As for soil, the dryest part of a farm, if not too poor, is the best for all kinds of fruit trees. Bleak, poor, clayey knolls should be avoided, however. Apples will not grow in a wet soil; pears are less particular; plums must have dry land; peaches dry and sandy; quinces do best on a dry spot; the blackberry is the only fruit I know of that does well in moist soil.

Now to prove my premises by experience in the orchard as above stated. Containing all varieties of soils, it gave a good opportunity to test the adaptability of tree and soil.

Apple trees, planted on dry land moderately rich, such as most of our farm lands are, do the best at present, still bear good crops, and are the healthiest and have always done the best; on dry, but very poor soil, did no good and soon died; on rich sandy soil did not ripen the wood well, died much in the limbs and showed many weak places; those planted on swale land, though drained at much expense by a skillful Scotchman never did any good and soon a large open space told the story. A few pear trees were planted in wet ground and have been and are doing well, but dry land for pears. Some 50 quince trees stood in a wet spot and bore good crops, the drier part however gave the better crop. Cherries must have dry soil, even stony. I mention plums the last because of their awakening importance they require a more lengthy notice.

I emphatically recommend all varieties of plums to be planted on *dry* ground. True the wild plum is mostly found in wet spots, yet experience has taught us that the cultivated plums and prunes will do no good save on dry soil. P. Barry, in his "Fruit Garden" says: "The plum succeeds best as a general thing in a clay loam, rather stiff. The native plum, however, does well on very light soil." This is in accord with my experience in this country and of what I know of cultivation of prunes in Germany. Much of the land in Northern Germany is very sandy, having been reclaimed from the blowing sand dunes, and is frequently drifted by the wind to the great damage of crops. In the early part of this century the King of Prussia furnished to the farmers of such lands a large amount of prune trees, called the German Prune, Quetsche or Twetsche, to be planted on their sandy lands 60 feet apart. It was claimed that the trees would make wind breaks and the leaves covering the ground would prevent drifting, and the crop would amply repay for occupation of space. Now then this experiment proved an entire success. The farmers reaped a larger crop of rye and a profitable crop of prunes. I have seen the dried prunes from these lands hauled to market in large box wagons and sold by the bushel.

Now this, if anything, would prove that the prune does well on dry land, and such is my experience in Oregon. In 1861 or '62 we planted a number of prunes, some on dry land, and some on wet though under-drained—and all on wet land soon died, and all on dry land are now fine trees, bearing heavy crops of Fellenberg Prunes. My experience would tell me by all means: plant your plum and prune orchards on *dry* land. It is all important that we start out right in any undertaking, but much more so in starting an orchard that takes years to mature and is expected to last for years. I have more to say on this subject in another paper.

HENRY MILLER, Portland.

Resolutions of Respect.

Whereas, It has pleased an all-wise Providence to remove from our midst by death, George Mathews, a worthy member of Lone Star Grange, No. 160, P. of H.; therefore be it

Resolved, That by the death of Bro. Mathews we have suffered the loss of an efficient and earnest co-worker in our cause, society a faithful and upright citizen and his family a kind protector.

Resolved, That we extend to the afflicted family of Bro. Mathews our sincere sympathy and condolence, in this, their hour of trouble.

Resolved. That the Secretary of this Grange be instructed to furnish the bereaved family of deceased with a copy of these resolutions, also one to the WILLAMETTE FARMER for publication.

A. H. BRETMAN,
H. A. JOHNSON,
MRS. M. L. TONEY,
Committee.

A herd of choice Guernsey cattle imported by the Massachusetts Society for Promoting Agriculture, over a year ago, were sold at auction at Jamaica Plain, on the 3d inst. Twelve head were sold at prices ranging from $61 to $301, and the aggregate amount realized at the sale was $1,734.

How Prunes thrive in Oregon.—A Grange Feast.

BEAVER GLEN, Dec. 6, 1875.

ED. FARMER: My promise to write some of my experience with the prune I now fulfill, I have tried three varieties of prunes so called, The German Prune is the only one worth planting on the prairie or open ground, and I very much question whether there is any locality this side of the situations about Portland or Vancouver, Washington Territory, that the Italian prune will succeed. It may possibly succeed south of the California Mountains, but in all my acquaintance in the Willamette valley above Oregon City, I do not know of a single healthy tree of this variety, but in sheltered situations there may be some.

The German prune needs good culture, and so far as my experience goes will do best on hill or red land. Let it head low and cultivate thoroughly, or the fruit will drop off until there is only a a handful left. Some have tried irrigation, but it grows two late with this treatment.

We had a jolly time on yesterday. Our Grange at Rock Point met for our anniversary feast, and a free talk. Bros. Smith, of Turner Grange, and Jones, of Salem Grange, were with us, and such a social feast is seldom witnessed or experienced in this selfish and grasping world, and such a talk as the sisters gave us on domestic economy was, fearful; and when we adjourned it was the understanding that each brother and sister granger was to pay a social visit, one or more, to some brother and sister granger before the next regular meeting; and then such planing of visits and mutual good will made me think of that good scripture which says, "as ye would that men should do unto you, do ye even so to them." Brother and sister grangers; the grange will be just what we make it in and of ourselves.

G. W. HUNT, Sec.

From the Coquille.

COQUILLE, Dec 9, 1875.

EDITOR FARMER: The steamer "Cardelia," about which so much uneasiness was felt in consequence of her being out in the late stormy weather; came into this river yesterday, safe and sound. She experienced the roughest weather she has ever yet encountered; and the fact that she came in, in good condition, when others went under, reflects credit on her officers and crew, and their gallant little craft. She brings a boiler, engine, and other machinery for Hoover's mill, on the upper Coquille, merchandise and machinery for Capt. Parker's tug, which he is building to run on the Coquille bar. This tug will be built of Oregon fir throughout. She is to be 10 feet keel, 15 feet beam, and 5½ feet draught. Her engine will be 60 horse power, with extra large boilers. She is to be built extra strong and staunch, and calculated to plunge through the surf like a sea-lion, and drag anything which is loose at both ends, after her.

Capt. Parker will also build a large sawmill at his place on the lower Coquille, the timber for which is now being transported to the place of its erection. M.

Letter from Iowa.

COLESBURG, DELAWARE CO., IOWA.
Dec. 7th, 1875

MR. EDITOR: It has been sometime since I received a copy of the WILLAMETTE FARMER (which you kindly sent me for some weeks or months after my subscription had expired). I have been thinking about renewing for some time, but the pressure of work and a little scarcity of funds have prevented, but now please find inclosed P. O. order for $5 for which please send me the WILLAMETTE FARMER as long as you can afford for that amount, after deducting what I already owe you. My family like it the best of any of the three or four Pacific coast papers which we have been receiving. Winter has set in; it is snowing all day to-day; mercury a week ago last Monday morning 15° below zero; about 10° all day.

Yours most respectfully,

JAMES COLE.

The Southern Oregon Swamp Land Company met at Jacksonville on Friday last and elected James D. Fay, J. N. T. Miller and Henry Klippel as directors; Henry Klippel as President.