WHAT OF THE HARVEST? Results of the Worst Year Ever Known.

The year 1882 has not proved as favorable to agriculture in the Upper Columbia region as was hoped. The dry season came early and lasted until October, and the wheat crop was scarcely more than one-half what was anticipated. The farmer everywhere is disappointed in his harvest, but we venture to say that no other country known, and certainly no other portion of the United States, could have experienced so severe a drouth, lasting from May until October, and have realized such crops as have been gathered throughout the Upper Country. Our yield of grain averages well with the turn-off realized east of the Rocky Mountains by the best wheat-growing States in ordinary seasons. Wherever good farming was done and wheat was sown on summer fallowed land, 30 to 50 bushels to the acre has been reaped. The season of 1882 fails to realize the hopes entertained, because the common way has been to plow and sow in the spring and expect 40 bushels to the acre. Enormous as such crops may seem, they have frequently been realized. In the vicinity of Walla Walla, spring comes earlier than it does a few miles away. Our farmers generally get through in early May and feel ranguine of good returns. It is uncommon that failure should attach to such farming, but it must occur when seasons come such as we have had in 1882. In the vicinity of Dayton they put in crops through the first half of May; along the base of the Cour d'Alene Mountains, near Moscow and Farmington, they sow wheat until June and confidently expect a large yield. Through the Palouse country it is common to

summer just passed this was not the case. The year 1882 stands as an exception, and has had no parallel for drouth since the settle ment of this country. Let us explain results and judge the country by that standard. The fact is beyond question that wherever good cultivation was had and wheat was sown in early fall on summer fallow, the crop was good. The country that produced 30 to 40 bushels to the acre in 1882 must be extraordinarily prolific. Yet such is the case wherever good farming has been done. Spring crops of oats and barley have resulted fairly when well oats and bariey have resulted fairly when well put in; gardens have done well with ordinary care; orchards have thrived; pastures have been good all summer, and the early fall rains freshening them up have made all stock actually fat at the beginning of winter.

The year 1882 has been a crucial test. Though disappointed in many respects, our farmers, have more reason than even to place

have showers through June, During the

farmers have more reason than ever to place confidence in the future. Good farming will pay in the worst season ever known. If the lesson taught by this summer is well learned, we shall never know failure of crops. Wheat should always be sown on summer failow and the control of the control should always be sown on summer failow and put in early in fall. It is also probable that in some parts of the upper country it will be advisable to introduce hardy winter varieties from the Northwestern States. The White Club wheat that thrives west of the Cascades, and that usually does well about Walla Walla, may, perhaps, be replaced to advantage with more reliable winter wheats from the colder. States to endure a way severe winter.

During the six months since harvest the O. R. & N. Co. has transported about 50,000 tons or wheat, or flour as its equivalent, from the Upper Columbia to Portland. That was the product of the harvest of 1882. As much the product of the harvest of 1882. As much more was transported during the first half of the year. This, however, is no just criterion by which to judge of the wheat product of this region. A great quantity of grain is required to feed at least ten thousand laborers employed in connection with the different railroad enterprises; also, to supply bread for the recent immigration and seed for the inthe recent immigration and seed for the in-creased cultivation that is everywhere visible. The population of the Upper Columbia in-creases about 25,000 annually and creates a demand for bread to correspond. This great increase of population will plow at least 200,— 000 acres of land to be put in wheat, that re-quiring 300,000 bushels of seed. The more of

One thing that has been satisfactorily decided the past season is, that good corn crops can be made east of the Cascade Mountains. The late dry season was peculiarly tavorable for growing corn, and whenever it had any sort of care, corn made a good yield. It is well enough for farmers to inquire as to the good results to be obtained from cultivating chrn as a fallow, thereby making a profit while corn as a fallow, thereby making a profit while preparing.

Statesman.

Products of Our Section.

The deficiency of crops below what was anticipated, makes a vast difference in the summing up of the year 1882. If the Upper Country had furnished for export as much as was expected, there would be shipped during the harvest year nearly six million bushels of grain from the Upper Columbia to supply the foreign markets, while the actual surplus of the year cannot reach over one half of that quantity. It is noticeable that with a deficit of such extent we can yet announce that the traffic on the Oregon Railway and Navigation Company's trains and boats shows an increase of business over any former year. Exports from this Upper Columbia region do not consist merely of wheat. The wool clip amounts to some seven million pounds. Hides are shipped in large quantities, but it would be much better it they would be tanned at home. Flax seed from about Moscow and some other localities forms a staple of export; even in the Kittitas and Yakima valleys hope are grown exclusively, and have brought this year very fortunate returns to lucky owners of hop yards. Fruits have been shipped largely from Walla Walls and orchards along the Columbia and Snake rivers. The trade in lumber and fencing amounts to condarable in the way of local traffic. Every year the production varies and increases, as is astural and necessary if the country is to prosper. Stock interests assume more importance than ever before. Our farmers are receding and fattening swine in large numbers and sending thousards of porkers to the front to supply Chinese pork esters. Beef and mutton bear such a good price that the stock man is a more important character in the

and formed changes slowly from wilderness to civilization. One fact that is worth remembering is that the sod land of this bunch grass region cannot be subdued and made to respond with good harvests, under ordinary managment, in less than three years. The wiry bunch grass does not rot in a brief period. If the farmer would burn over the ground he intends to now the summar preyous, turning tends to plow, the summer previous, turning the grass into ashes, he would dispose of the worst detriment to a crop, and the quick ashes would be some improvement. As it is, the usual custom is to plow three inches in the winter and spring and sow to wheat in the fall. Harrowing and seeding bring up the roots and grass, leaving them mixed with the soil in a loose and indigestible condition. The soil has to absorb and literally digest the dry crass, and unless it can do this will not process. grass, and unless it can do this will not pro-duce well. Dr. Blalock put in his first crop duce well. Dr. Blalock put in his first crop and got small returns; he plowed and summer fallowed the next year and sowed 1,000 acres thus prepared, the third year, and got fifty bushels to the scre. Enterprising farmers are learning that the first crop can be made to pay well by pursuing a different course. They plow some three or three and a half inches deep in the fall and re-plow in the spring, crosswise, and five to six inches deep. They sow the next fall, and by cultivating and drilling the seed in two inches deep, which is a good depth, the soil and grass roots remain undisturbed below, and the result is a big interest on the expense of the second big interest on the expense of the second plowing. Twice plowing and cross plowing leaves the land in much better condition. It is looser and more mellow, and can hold down the roots and grain with the depth of second plowing. To leave this land rough after the seed is drilled in and to roll it down smoothly in the spring after, is said to be preferable to too much fall harrowing. Land that lies too smooth is easily hove up with frost, while land that lies a little rough is not easily

that he was correct. People have settled upon the favorite foothills and the best land of the valleys below the mountains, and have neglected the great area of rolling hills between Dry creek and Snake river and the Columbia. So, it remains true that one-half the arable lauds of Walla Walla county are unclaimed. Of late more attention is paid to this part of the country, and settlers are making locations. Absence of living water and difficulty in locating wells are the principal objections. No one need doubt the ability of the soil to produce crops. The fact is, settlers have chosen the most eligible locations, and with the wide world to choose from have passed over as good land as need be desired. The whole region possesses more value for production if it can be supplied with water, and eventually it will not be so difficult as people imagine to locate wells. The land toward Snake river is high hills in part, and yet can be made to produce wheat. Coming up from Texas Ferry, you climb a great ridge and ride for miles over beautiful bunch grass prairies without seeing a habitation or mark of a plow. All along Snake river to beyond the Tukannon, such seems to be the case. Good land can be found in the Blue Mountains that such home demand the better. A surplus product will some in due time that will astonish the world.

One thing that has been satisfactorily de. Assotin country is not over one half claimed, and from Alpowai canyon to Lewiston, in Garfield county, there is a great deal of vacant land near Snake river. The south side of Snake river is considered by some to be all taken up, but the fact is that this section yet offers homes—and good locations, too—for thousands of families.

thousands of families.

Eastern Klickitat had not a single settler last spring, and has but few now. For six miles east and west with average width of fitteen miles, that portion of country invites settlement. So far as appearances go, that section possesses excellent soil, and every advantage that can be desired is obtainable. An enterprising German who works in the shops at Ainsworth has taken land on the Columbia near there, and has made it produce wonder-fully. It has not been supposed that that particular section was of any value as agricul-tural land, but it seems now that good land lies along the Columbia above Ainsworth, and there is a strip of good country between it and the road, north and south. The extent of good country exceeds all previous anticipations. the mate of the steamer Billings says a very desirable strip of agricultural land, twenty miles long and six miles back from the shores of Snake river, commences six miles from Ainsworth on the north side of that river. Only a few months ago no one supposed there was good land there, but it is claimed that this particular tract containing 75,000 acres is

The lower part of the Palouse country is almost entirely vacant. Take fifty townships of land there and not one-half the government land and not one-fourth the railroad land is ret occupied. All these specified tracts of land are in reasonably close proximity to Walla Walla, and we make the point that unoccupied territory, capable of making homes for ten thousand families, of excellent soil, remains vacant within fifty miles of Walla Walla. That will help to appreciate the des-tiny that awaits our beautiful and enterprising city in the immediate future if we merit by enterprise results that are within our grasp. - Walla Walla Statesman.

Morticultural.

Ancient Ariculture.

The term agriculture, writes Joseph P. Eaton to the New England Farmer, stands for an industry that is the mainspring of our existence, and such it has been, from the very nature of things, ever since human beings inhabited the globe; and, as it is through agriculture, or labor and capital applied to land, that all wealth is derived, it is very essential that in the managament of our farms correct principles be adopted. We, as a people, are a little inclined to boast of our ways of conducting farm operations as being superior to the ways of the ancients, but before we go too far it may be well to search history a lit le and learn in what respect we excel. The farmers of ancient Egypt practiced the rotation of crops and were skillful in adapting their crops to the soil and the seasons. During the annual inundations of the Nile they fed their cattle with hay, and at other times tethered them in the masdaws in green clover Their sheep were shorn twice a year. Much attention was given to twice a year. Much attention was given to the raising of poultry, and artificial hatching, which most people regard as a modern improvement, was practiced by the farmers of ancient Egypt. They had gardens, erchards and fish ponds, and gave protection to game, to promote its increase. An ancient Egyptian painting, more than three thousand years old, represents the sowing of grain. A plow drawn by a yoke of oxen takes the lead, next comes the sower, scattering seed from a basket; another plow covers the grain, while a roller follows and completes the work.

smooth is easily hove up wish frost, while land that lies a little rough is not easily thrown up.

It is a notable fact that many of the pioners have been "frozen out" literally and beggared in their efforts to procure harvests from new land They risked it all on the first crop and plowed shallow. Those who have come after have found the land subluded to their hands. Those who will break up and re-plow their lands, as we advise, even if they put in less land, will have satisfaction in good returns, and make a success, though we shouldn't expect such land to respond the first season to more than two-thirds of its capacity, even with the best cultivation possible. Those who will learn thoroughly the lessons of other people's experience, can become rich in this country, but if they insist on learning by their own experience they may remain poor an inconvenient time. We give these suggestions knowing they will be invaluable if accepted. Every good farmer will corroborate them. If the new comer will take advice he can soon put himself in comfetable fix and become a successful producer—W. W. Statesman.

A little while ago we heard one of the best posted land lawyers of Walla Walla make the rather astounding statement that one-half the rather as the r and unclaimed. A glance at the map showed ping so that the land could rest entirely every second year, but in case the husbandman has not land enough to do this, let him sow his next year's wheat crop in the field where he has just gathered his vetches, or such crops as enrich the land."

Terra-Cotta Lumber.

A party of persons, chiefly builders and scientists, recently visited the works of the New York Terra-cotta Lumber Company, at Crow's Mill, on the Raritan river, near Perth Amboy, N. J. The New York Terra-cotta Lumber Company was recently formed for the manufacture of the material from which it receives its name. Terra-cotta lumber was invented and patented by Mr. C. C. Gilman, of Eldora, Iowa, Prosident of the company, and is made by mixing the kaolinite, or "top" clay, which is found in immense quantities throughout Middlesex county, and burned in kilns in a manner similar to that of ordinary brick. The result is a peculiar terra-cotta ware, possessing peculiar properties. It has no fibrous texture like wood, the strength of the material arising from incipient vitrifaction. the manufacture of the material from which the material arising from incipient vitrifaction obtained in firing, and half-inch boards made of it, smoothly planed and jointed, show greater strength and tenacity than dry oak of equal thickness.

Every shape which can be given to terra-cotta by edged tools can be given to terra-cotta lumber. It is as easily worked as pine or spruce, is half the weight of building brick and tightly retains plastering without the sid of lathing. To display the resistent qualities of terra-cotta lumber to fire and water the furnace tender, with a long pair of steel tongs took from the center of the furnace a small took from the center of the furnace a small block of the ware which had attained a white the stape between the stape beverages. Strong liquors are still the staple beverages. Grapes are not much in demand, even for table use. block of the ware which had attained a white heat and plunged it into a pail of water. After cooling it was placed on a forge and the water with which it was saturated expelled in the form of steam; petroleum was next poured over it and afterwards ignited, the block continuing to burn with a steady flame for several minutes. Subsequent examination of the block by sawing it in two showed no difference in appearance from other material which had not been submitted to so severe a test.

The adaptability of terra-cotta lumbe building purposes, by the ease with which it can be worked, its lightness, its indestructi-bility by water, frost, gases and, above all, fire, has already attracted the notice of archifire, has already attracted the notice of architects, and the demand for it largely exceeds the present supply. The New York Terracotta Company has an extensive factory fitted with powerful machinery, but its present output is entirely inadequate. The company has therefore purchased the Potter estate, adjoining its present site, and has begun the erection of a plant estimated to cost \$200.000, with the capacity of a daily output of finished work. The roof of Columbia college is to be constructed of the new material and the company has an order to supply 12,000 tons of it to Mr. Jose F. Nevarro for use in the apartment houses now in course of crection by him at Fifty-eighth and Fifty-minth streets and Seventh avenue.

Mulching Trees.

When we have had no manure to spare to accelerate the growth of fruit or ornamental trees, we have resorted to spreading fine brush all around them in a ring, from within a few feet of the trunk to several feet beyond the circle of a perpendicular line from the ends of the longest branches to the ground. As this brush rots it forms food for the growth year the production varies and increases, as is a stural and necessary if the country is to prosper. Stock interests assume more importance than ever before. Our farmers are breeding and fattening swine in large numbers and sending thousands of porkers to the front to supply Chinese pork eaters. Beef and mutton bear such a good price that the stock man is a more important character in the public eye than he ever was before. A country that is filling up and becoming settled

BRIGHT'S DISEASE IN WOMEN.

The gentler sex, for a variety of reasons their thrift. In a dry season it retains the moisture from evaporating from the ground, and with it we have saved trees from being killed by a severe drought, while others standing in the same kind of soil not far from the supply character in the public eye than he ever was before. A country that is filling up and becoming settled

A Washington Territory farm is like no other on the footstool. It produces more wealth, is easier managed, requires less to manage than a farm in any other country on earth. There are no rocks to clear away, as in the East; no trees to fell, as in the Middle States; no ditches to dig and no irrigation, as in some of the Western States; no drought to fear, as in the Southwest: no floods to dread, as in the rich bottom lands of the Lower Mississippi; no levees to build or fertilizers to buy, as in the older agricultural countries, and no past record of failure to hover over and alarm the man who plows and reaps in the great wheat gardens of the universe. The land that was put in crop eleven years ago is as fertile now as then. Yearly there is no diminution in productive qualities of this un-equaled land. The promises of fortune are always kept in this Mecca to the fortune seekers. Had the searcher for marvelous things in the old times, who boldly embarked upon an unknown sea, and, having landed on an unknown coast, bravely pushed into the forest to meet the dame who always waits to be overtaken—hud these bold searchers penetrated to this Territory, they would have considered their mission accomplished. There is no need to go beneath the surface for the gold, for it lies on top. No great amount of labor is necessary to to accamulate great where it is not necessary to the accomplished. riches in a c untry where the ground prepared and the seed placed beneath it assures the harvest in due time. Washington Territory farms are a mine of wealth, never failing to those who possess them.—W. W. Statesman.

Water Against Frost.

The College Speculum (Lansing, Mich.,) reports some experiments for protecting tender plants against night frosts by drenching with water. A plat of coleus plants was copiously watered at 9 o'clock in the morning, the water forming a screen of watery vapor all around the plants for the time. The same treatment was given to fuschias and begonias. The next was given to fuschias and begonias. The next morning these plants were free from every tance of frost, but every remaining coleus plant on the grounds not so treated was runed. This remedy was also applied to grapes which had not ripened when a frost threatened them, with entire success. grapes which had not ripened when a rost threatened them, with entire success. For a light or moderate frost, it is found to answer well, but would not be likely to succeed with a severe one. The watering should be as copious as that of a heavy rain.

Cotton in California

The experiment of raising cotton in Southrn California is being tried. Since the fiat has gone forth that the Chinese must go the attention of the cotton raisers is turned to the Southean States with the view of procur-ing the needed help to raise and harvest the cotton crop that will be planted the coming year. This new experiment is yet in its infancy, but it is expected that it will grow into quite an industry in a few years in the golden State. Since the yield of the gold mines has diminished, many business projects have been started and carried to successful results-

Green Food for Fowis.

It is very necessary for the thrift and productiveness of fowls in winter that they should have a good supply of vegetable food in some form or other. Potatoes, turnips, or apples boiled and mixed with meal and middling, and fed hot in the morning, are good; as also are raw cabbages or apples. A large enough quantity of cabbages for a winter's supply may not be conveniently stored, and if not stored properly they rot badly, and are

California Wine.

withstanding the large dimensions which wine culture has attained in California, the

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every year.

Plant by dropping the vines 2 feet by 6 inches, and forcing into the muck with a forked stick or wedge chapted dibble. Hee out the weeds the first year; null them out by hand the second, and the third year they

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