

Number Tons of Alfalfa to the Acre.

Sometime since in conversation with O. A. Fechter of North Yakima, whose judgment as to land and property values in the valley we regard very highly, expressed himself as having some doubts that the Sunnyside country was producing the large yields of alfalfa that was claimed for it. He said that his own experience and observation in handling alfalfa lands in the valley would lead him to believe that this class of lands about Sunnyside were not producing the crops that were claimed for them.

In the past few days I had an interview with Mr. Arthur Stewart, who is visiting his brother-in-law, J. R. Whitney, of this place, and who is now investigating the claims of this country for lands as an investment of capital, and he expresses himself the same as Mr. Fechter.

We have always contended that seven tons of hay per acre was a very conservative estimate for the average yield of alfalfa at this place. Fearing that the gentlemen named above might be correct in their conclusions I have interviewed a number of the leading alfalfa producers of this district. The questions asked were: "How many years have you been producing alfalfa?" "From your own experience and observations what do you regard as the average product of the alfalfa fields that you have harvested or seen harvested, one year with another, since you were here, your judgment to be based on actual measurements of the meadow and weight or measurement of hay?"

Name	Years experience	No. tons and observation. per acre.
W. H. Hendricks	7	9
E. M. Douglas	7	9
Jas. Henderson	7	8½
Will Stobie	7	8
A. A. Hawkins	7	8
S. H. Miller	3	7
E. E. Ferson	8	8¼
Webber Bros.	8	7½
D. B. Eby	3	7
L. Pace	8	8½
W. H. Cline	8	8.23
John Chisholm	7	8¼
Fred Allen	7	8¼

Making an average of a little over 8 tons per acre.

John Chisholm, Fred Allen and W. H. Cline are among our heaviest producers of alfalfa, they have always sold their hay to feeders and are therefore in position to give figures as to what their meadows have yielded them. Mr. Chisholm now has a meadow aggregating 75 acres, some of this is late seeding. He is willing to be quoted as stating that his meadows have returned him 8¼ tons per acre. Fred Allen has about 30 acres of producing meadow and his report is the same as Mr. Chisholm's. The three gentlemen named above were among the first to plant alfalfa at Sunnyside, and are in the best position to give figures as to what meadows will do, one year with another, for the longest period known in Sunnyside. New meadows do not yield as well as old ones, and for this reason I think those who have been here a shorter number of years, are not able to report as high as those of longer years of experience.

W. H. Cline says, "While I have been harvesting alfalfa for six or eight years I have kept an exact record only the past three years. I now have 141 acres in alfalfa. The past three years my alfalfa meadows have averaged me 8.23 tons to the acre. The two years prior the hay was measured on

the first of November, and the last year it was measured as fed and sold by weight. The hay weighed out 200 pounds more per ton than it measured. Probably if the hay were all measured November first it would have been equivalent to same by weight as by measure."—H. M. Lichty, in the Sunnyside Sun.

Wearing Out Wheat Lands.

Exclusive wheat growing which is likely to be practiced on many of the arid farms of the west for some years to come is justly charged with reducing fertility of the soil. The main reason for this is that the grain and frequently the straw are taken off the land and nothing is returned. In the practice of arid farming, however, several causes tend to diminish the evil effects of continued wheat cropping. First, the yields are smaller than those obtained on irrigated farms and less plant food is taken away as a result. Secondly, the header is commonly used on arid farms which practically leaves all of the straw on the ground to fertilize it.

Then again, our ordinary soils are extremely fertile as compared with those under humid conditions so that there is no immediate danger of soil exhaustion. Experience has shown, however, that the fertility of our soils, if cropped too persistently and in an unscientific manner, must necessarily suffer gradual and serious diminution. A rational system of rotating crops will prevent this in the case of irrigated places, but on the arid ranch such rotation is, with our present experience, almost impossible. The frequent fallowing and deep fall plowing so often recommended for the rain belt will in a large measure offset this difficulty.

The only element of plant food that is likely to be exhausted is nitrogen which by the application of modern scientific results, may be restored to the soil. The element nitrogen occurs in great quantities in the atmosphere but is present in such form that most plants cannot use it. All leguminous or pod bearing plants such as alfalfa, the clover, vetches, peas and beans, differ from other crops in possessing a special power of taking nitrogen from the air. It would, therefore, seem wise at certain intervals, to sow alfalfa or some annual leguminous crop on the arid ranch in order to fertilize the soil.

This will be profitable, even though the crop germinates and grows only for a few weeks and withered by the hot weather, for during its growth it will take from the air considerable quantities of nitrogen which, if left in the roots and stubble of the crop will add to the soil's store of nitrogen. It may be said that where some legume is grown simply to enrich the leaves and stalks of the crop for the purpose of fertilization alfalfa is not best adapted to this purpose and something else, preferably an annual, should be grown. On the great plains of eastern Colorado where most of our non-irrigated wheat is raised, the wild sunflower and other rankly grown weeds spring up immediately after breaking the soil or harvesting a grain crop. This growth is excellent to turn under as a fertilizer or to improve the mechanical condition of the soil.—Field and Farm.

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A Giant Harvester.

The Los Angeles Herald describes the biggest harvesting machine in the world. It consists of a traction engine, capable of handling seventy-five tons, and which takes the place of sixty horses, a header or mowing machine, which cuts a swath thirty-six feet, and a threshing machine all complete. The threshing machine and header are run by a thirty-horse-power engine, entirely separate from the traction engine, save that they both get steam from the same boiler. The apparatus moves over the ground at different speeds, according to the thickness of the crop, while all the time the header and thresher are going at full speed, whether the grain be thick or thin. The average speed made is three and a half miles an hour and 100 acres a day can be threshed by the machine. The drive wheels of this monster traction engine are eight feet in diameter and have tires forty-eight inches wide, on which are ridges an inch and a half high. Eight men are employed on the thresher. Half a minute after the header starts to work the threshed grain begins to fall into the sacks on the other side from where it is cut, while the straw falls into a cart behind. The heads are carried away from the header by a draper, or moving belt, forty-eight inches wide. They are carried through a colander, which breaks the beard from the barley and shells it at the same time, then by a narrow belt through two cleaners, and finally to a bin, from which it is sacked. The sacks are sewed and set aside as fast as filled. When twelve sacks have been filled they are allowed to slide off the cart on which they are stacked to the ground. Likewise when the straw cart is full it is dumped. This giant automobile is sixty feet long and half as wide, weighing over a hundred tons. It uses oil as fuel, necessitating the use of four horses to haul oil and water for the boiler as it travels around large areas.

THE MODERN FARMER.

A few years ago not many people living in cities concerned themselves about the farmer. They knew he lived and delved, provided the markets with all the good things of life, but to him further attention was not given. Of course the poets sang songs of praise to a rural life, but that has always been a great part of their occupation. But nobody told of the farmer's progress, of his new ways of life and what he was doing to add to the comforts of the rest of the world. There was

one reason for this silence in the days that are past, and that was that the farmer had not reached the plane that he has reached today. Now he is surrounded by every comfort in life, and when he sighs for more it is because human nature is never satisfied, and human nature is the same on the farm as anywhere else.

In saying which nothing out of the ordinary is told to the world, but the facts in connection with the new conditions should never be lost sight of. We are all so accustomed to modern marvels of improvement that no sooner are we interested in the practical development of one idea than another is presented for our consideration. If our grandfathers on the farm had been told that their grandchildren would enjoy the convenience of electric cars passing their doors in the country, that they might transport themselves from one town to another, or that they could remain in their homes and talk to their neighbors roundabout everywhere, send messages, order goods and transact other business in the towns and cities equally as well as if they had gone thither to perform these things; or that they could find their letters and newspapers delivered at their doors, and at those very doors pay bills by post checks; or that they could have libraries composed of the best books written placed within easy reach, and always receive supplies of new books on all manner of subjects; or have central schools, which would be colleges in fact, so far as teachers and methods and instructions were concerned, and that the children of a large district would be conveyed to and from these schools in comfortable carriages; or that—impossible, they never would have allowed the enumeration to proceed half that length, but would have told the informant that his prattle had better cease, as there was no inclination to listen to such fairy tales. And yet, even now, all these things have been accomplished, and evidences are presenting themselves every day that even greater wonders are in store for us. There are some modern prophets who are shouting from housetops that the millennium is near at hand, but if those grandparents we have just mentioned had believed that they were to experience such things as the farmers of today are enjoying they would not have hesitated in concluding that the world had no longer to wait for the promised glorious epoch, as it had already arrived.