W E E K L Y B U L L E T I N

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

Reports for week ending October 2, 1915.

Akron.

The past week has been very favorable for field work. There has been no frost and corn is maturing nicely. Practically all of it is out of the way of frost. The corn on the rotation was harvested Wednesday and Thursday. Some of the earlier varieties of cane in the forage crop tests were harvested Friday. The winter wheat and rye are up nicely.

Maximum temperature for week 75; minimum 41. Precipitation .02 inch.

Amarillo. Report for week ending Sept. 25, 1915.

The week has been cool, cloudy and wet for the most part so that little headway was made at harvesting grain sorghums which was commenced the latter part of the week. By this morning, Sept. 25th, we have had over two inches of rain and it is still raining with no sign of any let up.

At the Panhandle Fair, which came off here this week, there were splendid exhibits of livestock, poultry, and of farm and garden products from about 30 counties around this portion of the state. Two past good seasons and present prospects of another is booming interest in agricultural affairs. There are many real estate transactions going on and much land is being broken and prepared for crops next season. Many gas tractors continue to be taken out by farmers around here.

Main heads of milo and kafir on D. L. A. plats are practically ripe but heads on numerous suckers and branches are still quite green.

Maximum temp. 87 on the 19th; minimum 51 on the 21st; ave. mean 67. Average hrly wind velocity 7.6 miles. Precipitation 2.04". Evaporation 1.135".

Amarillo. Report for week ending October 2, 1915.

Due to continued wet weather field work remains at a standstill but for the past two days it has been clearing so that now it is hoped that harvesting of row crops will be resumed the first of next week. Office work and some note taking and counting of stands in the field has been in order for the week, together with cleaning and grading of grain. The grades run rather poor and low on all the small grains here this season mainly due probably to the very dry spell that came on in June at the filling time. Standing of the grain in shocks for 7 weeks after harvest thru rains that brought on more or less sprouting contributed to this result. No tests have yet been made for germination, but up in Kansas farmers are being advised to use last year's seed on account of poor germination found in the grain of this season.

Mr. L. Wermelskirchen who has been in charge of Cereal nursery work on the station the past two years, resigned on Oct. 1st and leaves here in a few days for College Station, Texas, where he takes position as Superintendent of the college farm.

Max. temp. for week 82 on the 27th of Sept.; min. 44 on Oct. 1st.; Avg. mean 61. Avg. Hrly. wind velocity 6.3 miles. Precip. 2.40". Evap. .929".

The first half of Sept. was dry with fair weather prevailing but since the 15th there has been 4.9 inches of rain which is 2.7 inches above normal for this month by the station's records covering 9 years. Evaporation of 5.986 inches for this month is 1.345 inches below the 9 year normal.

Bellefourche. Report for week ending Sept. 25.

The winter wheat in the M. C. series was seeded on Sept. 20. Only that on fallow will come up without a rain.

The flax plat in Rotation 12 was threshed, yielding 25.4 bu.

Corn has made almost no progress during the past two weeks. Part of that on fall plowing is ripe, but that on spring plowing has little chance of maturing. A frost on Sept. 20 injured the corn to a considerable extent but did not kill it entirely.

All fall plowing except that after corn is completed.

Maximum temperature 85; minimum 30. Precipitation .53 inch.

Colby.

Till today cool cloudy weather prevailed nearly all week. Several evenings were so cool that frost seemed imminent, but each time the sky was cloudy and foggy in the morning, so that a frost was averted. Corn will be ready to cut sometime this coming week. Red amber sorghum was put into the silo today. Milo is in the early dough stage, while kafir is in the milk stage. In spite of the fact that the wheat seed tested only 56% germination, the stand will be very good.

Six head of grade Ayshire cows and a pure bred Ayshire bull were purchased and brought to the station from eastern Kansas yesterday. The metal lath dairy house is nearing completion.

Gen. Supt. Thompson is visiting the station this week-end.

Max. temp. for week 78; minimum 40; average hourly wind velocity (2') 4.2 mi. (8') 6.7 mi.; evaporation .788", precipitation .02".

Max. temp. for month of Sept. 89 on the 7th.; minimum 35 on the 21st; mean 64; average hourly wind velocity (2') 5.5 mi. (8') 9.0 mi., precipitation .67", (normal 1.44" 1914 .52"), evaporation 4.938".

Dickinson. Report for week ending Sept. 25.

On the 13th all of the corn was frozen to the ground. Very little outside of the dwarf early flints were far enough along to make seed corn. Some plats in the rotations will perhaps make a small percentage of seed ears.

Threshing was started on the 22nd. The Dry Land wheat was threshed on the 23d with an average yield of 37.3 bushels per acre. The highest yield 44.8 bu. was obtained on green manure, peas plowed under in rotation 17. The lowest 25.8 bu. was obtained on land cropped continuously to wheat and spring plowed.

Rainy weather has prevailed since the 24th with a total fall of .83", for that period. The total rainfall up to date for September is 2.04",- just double the average.

Temperature conditions for the past two weeks have been somewhat normal. The maximum 79 and the minimum 26.

Dickinson. Report for week ending October 2.

Maximum temperature for the week 71; minimum 33. Precipitation 1.51".
Excessive rains have set threshing operations back another week. In an ordinary year these rains would be welcome,- coming as they do, in time for fall plowing, but with so much grain in the shock, yet it is a detriment rather than a benefit.

Edgeley.

Cool, cloudy weather with frequent drizzling rains have prevailed thruout the week. No threshing has been possible in this vicinity since the 23rd of September. Plowing has been general for those having the shocks off the land and many farmers have been taking advantage of the opportunity to get their silos filled.
Plowing has been about the only field work done on the station until yesterday when the corn on the plats was harvested.
Max. temp. 71, ave. Max. 55; minimum 33. Precipitation .42 inch.

Scottsbluff. Report for week ending Sept. 25.

Except on disked corn land, winter wheat and rye were seeded during the week. The soil is in excellent condition and good stands should result.
No damaging frost has occurred yet, but it is thought the corn has made all the growth it will. The binder will most likely be started next week.
Late fall plowing was started and flax was threshed. The flax yield was 8.3 bushels per acre.
Precipitation .10 inch. Max. temp. 89; minimum 36.

Scottsbluff. Report for week ending October 2.

Weather for the week was favorable for germination of winter wheat, the early seeding of which is now up. Winter wheat and rye on disked corn land was seeded on the 27th. Corn was harvested on the 28th. Twenty-five to thirty per cent. of it was affected with smut.
A fine steady rain on the 25th continued thruout the night, totaling 1.84". Practically none of it was lost in the run-off. This brought September precipitation up to 3.65". The record of previous years follows.

Sept.	1911	2.14"
"	'12	2.70"
"	'13	1.18"
"	'14	.24"
"	'15	3.72"

Total for this year, 20.55".

Mandan.

Messrs. Peterson and Pfaender left Monday for a trip to Canadian points and to nurseries in Minnesota and Iowa. They expect to return about the fourteenth.

Mr. Sarvis returned the 30th. from Denver where he has been assisting in the Department exhibit at the Dry Farming Congress.

Work has been started on a concrete manure pit and concrete frames for hot beds.

It has been too wet to thresh our flax.

Mr. E. F. White, of the Missoula Forest Service office, visited the station Saturday.

Precipitation .60". Maximum temperature 72; minimum 37.

Tucumcari.

Work on the construction of the implement shed addition is progressing nicely. Walls are all completed and the walls for the small tool room and electric light plant room are nearly completed. Roof construction has been commenced.

During the week all remaining plats were harvested with the exception of one plat of corn and one of milo which were planted very late. Heading, by hand, of crop milo has been started.

Some of the earlier cotton has commenced opening.

Max. temp. 83; minimum 47. Precipitation .44 of an inch.

If the present dry and clear weather continues for a week or ten days, some of the first harvested sorghums and corn will be ready for threshing and shelling.

The annual Quay county fair is to be held on the 5th and 6th of this month and we have prepared a small exhibit for its educational value.

Woodward.

The past seven months have a total of 71 rainy days with no long or injurious drouths, and a total precipitation of 31.75 inches of rain since the first of the year. Sorghum crops are very backward because of the cool wet weather but prospects are better for a large percentage of them maturing, than they have been up to date. Land is in very fine condition for the planting of winter wheat.

All winter wheat and rye on the station is up. The row binder has been busy whenever dry enough, and will be in constant use until all sorghum crops on the station are harvested.

The continuous rainfall throughout the season has made it particularly hard to keep up the spick and span appearances generally so desirable.

Note.

Field men will please take careful note that under orders from the Auditor for this Department, they should never pay a man in cash who is working under regular appointment, (unless said field man is a Disbursing Agent), except in exceptional cases, such as his leaving town and where a pay check cannot be sent him, or some other very important reason, and in all such cases, where the man is paid in cash, and subvoucher taken, the account should be accompanied by a letter of explanation.

Bellefourche. Report for week ending Oct. 3.

The corn is now practically dead and will be harvested early next week. Very little of the corn matured naturally.

A severe hailstorm occurred on October 2nd. Practically all of the leaves were stripped from the corn, and the alfalfa that had not been cut was badly damaged.

Winter rye and winter wheat are up.

Maximum temperature for week 76; minimum 30. Precipitation .56".

Dalhart.

The weather during the past week has been cool and damp with but very little wind. All of the crops with the exception of a few plats of late kafir are practically ready to harvest, and the heading of the grain sorghums and harvesting of the corn plats is being done as rapidly as the weather will permit.

Maximum temperature for the week 82; minimum 40.

Precipitation .56 inch.

Huntley.

The past week has been quite favorable for the development of winter grain that is in the ground. The minimum temperature was 33 and the maximum 68. Cloudy weather prevailed with rain recorded on 4 days totaling .85 inch.

Fall plowing after flax was done. Alfalfa for seed was cut from plats E and F on rotation 42. A few plats of corn were cut during the week. The remainder of the plats will be cut with a corn binder in a few days.

Ten hogs, totaling 1150 lbs. in weight were placed, October 1st on G-1-1 for "Hogging Down" corn. This plat is 1 acre in size. There are 6 Poland China and 4 Duroc-Jersey in the lot.

The following table gives comparative data for the past four years for the total precipitation and the total evaporation from May 1st to October 1st.:

	1912	1913	1914	1915
Evaporation	29.543	28.052	28.550	23.000*
Precipitation	10.9	7.19	8.85	13.42

*approximately.

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Reports for week ending October 9, 1915.

Akron.

The past week has been dry and rather windy. A light frost occured Monday and Wednesday nights and a very heavy frost Thursday night. Corn is fairly well matured but only the earliest varieties of sorghums have ripened. Minnesota and Dakota Amber and Kowiang are the varieties that have ripened. Kafir and milo are only in blossom. The remainder of the corn and cane plats were harvested during the week.

Maximum temperature for the week 84; minimum 22. No precipitation.

Amarillo.

The weather for the week has been dry and ideal for row crop harvesting which was resumed on the 5th after 10 days interruption due to rains and wet soil. The corn and milo on the D. L. A. plats have been cut and shocked up but kafir will not be ready to harvest for a week or so. An unusually heavy crop of grain and forage sorghums is being harvested on the station this year. Ground also is now being prepared for seeding of fall crops.

Max. temp. for week 82 on the 2nd; minimum 35 on the 7th. Avg. mean 49. Avg. hourly wind 6.4 miles. Precipitation none. Evaporation 1.171".

Archer.

Frost struck the corn on the 3rd and it was cut during the past week. None of it was near enough to maturity to germination so no seed corn could be selected.

Heavy frosts have been occurring each night since the 3rd.

The silo was filled during the week, and threshing was finished.

Winter wheat on disked corn ground was seeded today.

Max. temp. for week 66; minimum 20. Avg. wind velocity 8.3 miles.

Precipitation none.

Ardmore.

Max. temp. for week 80; minimum 22; total precipitation .07 inch. Total precip. for the month of Sept. 4.7 inches. First killing frost of the season occurred on October 14th.

The Supt. of the station was manager of a harvest festival day held in Ardmore on Oct. 9th. Several hundred visitors were present, and exhibits were exceptionally good.

Some of the visitors at the station this week have been Hon. Harrly L. Gandy, Congressman from the 3rd district of this state; Mr. C. B. Lamson, Agriculturist for the Chicago, Burlington and Quincy R.R.; Mr. W. E. Burger, Better Farming Agent for Blackhawk County of Iowa; Mr. W. P. Snyder of North Platte, Nebr.; and Mr. M. A. Haney of Great Forks, N. D.

Bellefourche.

All of the corn plats were cut and shocked on the 8th and 9th. The winter wheat was injured by the hail but has nearly recovered. Maximum temperature 80; minimum 21. Precipitation .13".

Colby.

On October 5th the temperature went down to 26, putting a stop to further growth of maturing crops. The sorghums had not begun to dry by the 4th., but before night of the 5th not a leaf was green. Corn on the station was practically beyond danger, but in some parts of the country it was quite immature. The earlier milo was in the douth stage, while that planted a week later was just past the blooming period. Kafir was in the milk stage. All the corn and sorghums on the D. L. A. plats were cut on the 5th. and 6th. The cold weather continues. Freezing temperatures recorded for the week are as follows:- Tue.26,Thu.31,Fri.25,Sat.32.

Max. temp. for week 83; minimum 25. Average hourly wind velocity (2') 6.0 mi. (8) 9.2 mi., evaporation 1.25". No precipitation.

Dalhart.

The first frost of the season occurred on the morning of October 6th and the following morning there was some ice to be seen in exposed places. This is earlier than the average date of early frost and there has been considerable damage done to crops, especially kafir, as a result. All of the corn and milo on the rotation plats has been cut and shocked and several of the 7/10 acre and 1½ acre plats of milo have been headed. Heads are drying very slow on account of the heavy dews and cool weather and no threshing has been done. Max. temperature for the week 86; minimum 31. Precipitation none.

Edgeley.

The week opened with a two inch rainfall accomplished by a driving wind and lasting all day Sunday the 3rd. Another light rain occurred the morning of the 6th. Since Sunday it has been steadily cold and windy and alternately cloudy and clear. The first killing frost of the season here was recorded the morning of the 5th, and it has frozen hard each of the last three nights.

Threshing was resumed around here yesterday. While the grain is still a little soft it threshes much easier and faster than before the rains. Very little field work has been done at the station with the exception of cutting corn and picking corn for seed.

Maximum temperature 69; minimum 22. Precipitation 2.36 inches.

Garden City. Report for two weeks ending Oct. 9th.

A frost of 28°on the 5th caught many of the sorghum crops unmatured. Of the grain sorghums milo is practically the only one that had fully matured. Only about 25% of the kafir had reached maturity. Harvesting of the crops is progressing rapidly.

Twenty-two plats of winter wheat and four plats of winter rye sown during the week ending Oct. 2nd has emerged with an excellent stand.

All roadways were drilled with winter wheat and rye. It is hoped that these crops will make a sufficient growth to check some what injury from soil blowing next spring.

Winter wheat is being drilled in two plats of milo stalks planted east and west. It is desired to see how effective the stalks will be in retaining winter precipitation.

Soil sampling for the season is now being finished. Despite the abnormally wet season it is found that all sorghum crops have fed to a considerable depth.

Max. temp. for past two weeks 81; minimum 28.
Wind vel. 2' ane. 7.6; 8' ane. 10.5.
Wind vel. Sept. 25 2' ane. 33.7; 8' ane. 42.4.
Precipitation 1.25".

Huntley.

The first real killing weather of the season occurred the night of the 6th when the thermometer registered 20. The lowest temperature previously recorded this fall was 31.

Corn was cut during the week, the most of which is in a fairly mature state- more so than it was last season when the immaturity was caused by lack of moisture. Winter wheat to be seeded on disked corn land will be seeded today. Potatoes on fallow land have made a very good growth. Some of the late varieties that have been bred for large size weigh between 2 and 3 pounds. Winter wheat and rye are making a very good growth and the stands are quite uniform. Sweet clover and alfalfa seeded in G-II on September 1st are both thru the ground in good shape.

Max. temperature 69; minimum 20. Precipitation .09 inch.

Mandan.

Weather the past week has been cold and rainy. The first hard freezes occurred during the week. The harvesting of garden truck has been continued.

Harvest of corn, which has been considerably delayed because of wet weather, was started today. Although corn is about a month late, the indications are in favor of good yields.

Some ash seedlings were lifted today in preparation for winter storage.

Work on the manure pit and the laying of pipes for the city water connections has been continued during the week as weather conditions permitted.

Flurries of snow occurred on Thursday. Precipitation .74".

Maximum temperature 59 on the 6th; minimum 21 on the 7th.

North Platte. Report for three weeks ending Oct. 9, 1915.

Max. temperature 88; minimum 24; mean 59. Precipitation 1.36" on Sept. 26-29. First killing frost occurred Oct. 5; five days later than the average date. Much of the corn had not reached full maturity, but ripening took place so rapidly during the two weeks before frost, that the crop was in much better condition than seemed possible several weeks ago.

Winter wheat is up and a good stand. The Station silos were filled during the last week in Sept. and first week in Oct. which was six weeks later than for 1913 and 1914. The 155 ton silo was filled with about 15 acres of corn.

Seed corn is being selected and hung up to dry at the present time for next years planting. It is planned to lay in an extra supply to hold over in case of crop failure in 1916.

Scottsbluff.

The first frost of the season occurred on the 3rd and 4th when the thermometer read 32 and 27 respectively. The lowest for the week has been 21. In previous years our killing frosts have occurred as follows:-

	Last in spring		First in autumn		Frost free period.
1911 ---	May 26 ----	28	Oct. 3	31	129
1912 ---	May 14 -----	30	Sept. 16	31	124
1913 ---	May 2 ----	26	Sept. 19	31	140
1914 ---	May 7 ----	32	Sept. 13	30	129
1915 ---	June 13 ----	32	Oct. 3	32	112

We have had three very windy days and only one small shower during the week.

All winter wheat and rye is up and making fair growth. Cane was cut at a height of 5', average, which represents second growth after the snow storm and freeze of May 17th - 20th.

Tucumcari.

During the week the farm work has consisted of snapping corn from the shock and hauling in the ears and of heading milo by hand. The heaviest plat of corn yet hauled weighs 388# with the shucks or in the neighborhood of 35 to 40 bushels of shelled corn. We have piled the ear corn inside to dry further before shelling. Our field crop of milo consists of a little over 10 acres and so far we have headed about 3 acres.

The annual Quay county fair was held Tuesday and Wednesday of this week and a fair sized crowd was in attendance.

Work on the tool shed addition is progressing nicely, but is handicapped somewhat by scarcity of labor. A great deal of building is going on and carpenters are scarce but we have the promise of four for the ensuing week and will probably finish all except a few odd jobs about the building the coming week.

Maximum temperature for the week 85; minimum 36. Precipitation none.

A light frost was noticed on the morning of the 7th., but did no damage what-so-ever, on the station. Parties living two miles to the east of the station state that the frost did some damage to some of the standing crops.

Note.

This will be the last number of the weekly reports for the season.