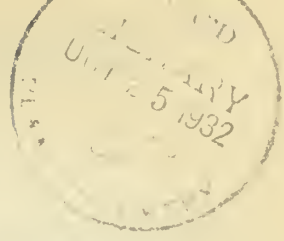


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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 1 1932

REPORT FOR THE WEEK ENDING OCTOBER 1, 1932.

HAVRE:

The week was typically autumn with a maximum temperature of 79° and a minimum of 28°. The temperature was below freezing on only one night. The evaporation for the week was only 0.771 inches. The total precipitation for the year to October 1 is 14.26 inches, which is 2.51 inches above the average.

Leaves are coloring rapidly and some are falling. Some of the shrubbery, notably sumac, is coloring much. Potatoes were dug and other garden crops are being stored. Fallow is being lightly cultivated to kill mustard that has started growth.

M.A.Brannon, University of Montana, was a station visitor this week.

JUDITH BASIN:

The weather remained warm and mild with no precipitation. Conditions during the past three weeks have been ideal for the completion of fall work. Potatoes were dug during the week with yields lower than average due to insect and hail damage. Moisture at this time would be of great benefit to winter wheat, a considerable acreage of which has been stubbled in during the past three weeks.

Maximum temperature, 78°; minimum, 31°; precipitation, none.

HUNTLEY:

Fine, Indian summer weather has prevailed throughout the week, and farming operations have progressed without interruption. Most farmers have finished haying and have turned their attention to fall plowing and harvesting root crops. On the larger wheat ranches winter wheat seeding is still in progress. In some places the early drilled wheat is coming up, but stands are patchy and look dry.

On the station, sorgo and Sudan grass were cut for feed, and the seed plots of alfalfa were harvested. Corn fodder was weighed, and planting the winter wheat smut nursery was completed. Winter wheat and rye on the plots seemingly has made little advance in stand or growth during the week. It looks very unpromising at present.

Maximum temperature, 85°; minimum, 33°; precipitation, 0.02 inch.

SHERIDAN:

Following a light shower the first of the week, the remainder of the week was fair. A light frost on the 27th injured only the tenderest vegetation. Tomatoes were not injured. A few plots in the rotations were plowed. Outside of winter wheat ground, which plowed fairly well, plowing was difficult. On some plots the plow went into the ground about a foot, running below the hard lumps, and could not be kept in the ground at all at any shallower depth. Corn was weighed and hauled from all plots, and stover was hauled from the remainder of the rotations.

Maximum temperature, 82°; minimum, 32°; precipitation, 0.14 inch.

DICKINSON:

Mild, dry weather in September with only 0.21 inch of precipitation was favorable for harvesting and storing of late crops. Digging of potatoes was completed on September 29. Yields were about average. In general, tubers were large, but the quality depended mainly on the condition of the soil where grown. An increase field of Cobblers on fallow in the orchard produced extra quality tubers, but on fallow in Rotation 414, the tubers were rough and irregular in

shape because the ground baked. The total yield in Rotation 414 was 146 bushels, while in Rotation 415, on wheat stubble, the yield was 128 bushels. In the variety test, Cobblers were best in quality and yield. Root crops are being dug. The yields are low and the quality poor. Winter wheat and winter rye seeded September 20 have not germinated because of the dry soil.

Rainfall during the nine months ending September 30 amounted to 14.07 inches, or 0.37 inch more than the 40-year average. During the six months, April to September, the total of 12.33 inches was 0.30 inch above the normal.

Maximum temperature, 84°; minimum, 28°; precipitation, 0.11 inch.

MANDAN:

Agronomy: The past week has been favorable for all field work. The temperature went to 28° on the night of the 27th, but there was not enough frost to kill all vegetation.

Corn varieties were husked early in the week and potatoes were dug. Potatoes on spring plowing after wheat yielded 95 bushels per acre, and those on spring plowing after oats yielded 95.8 bushels per acre.

Field work for the season is now practically completed.

The total rainfall for September was 0.24 inch, as compared with the average of 1.32 inches. This 0.24 inch is the lowest that has been recorded for September since the station started. The previous low record was 0.49 inch. The total precipitation for the year to date is 13.27 inches, as compared with the average of 14.79 inches. There has not been a rain at the station of value to crops since July 4.

Maximum temperature, 84°; minimum, 28°; precipitation, none.

Cooperative Grazing Experiment: The cattle in most of the pastures made normal gains during September. The steers of the 30-acre pasture were moved from their pasture at the end of September. They showed a loss of 26.5 pounds per head during the month. This loss is light when it is considered that they grazed a very short pasture during August and September. The 50-acre steers, which received cotton seed cake during the summer, showed a high gain for the month. During the past few years steers in this pasture showed a loss during September. The value of the cake showed up during the month. The Rotation steers did not make a normal gain during the month, nor during August. They still have plenty of feed in their pasture, but have failed to make gains, comparable to those in the larger pastures.

Following are the gains for September and for the season:

| <u>Pasture (Acres)</u> | <u>Number of steers</u> | <u>Gain per head (Pounds)</u> | |
|------------------------|-------------------------|-------------------------------|-----------------|
| | | <u>September</u> | <u>135 days</u> |
| 100 | 10 | 50.0 | 335.0 |
| 70 | 10 | 42.0 | 332.0 |
| 50 * | 10 | 49.0 | 335.0 |
| 30 | 10 | -26.5 | 206.5 |
| 70 (Rotation) | 14 | 21.4 | 285.7 |
| 28 (Brome) ** | 10 | 64.5 | 321.0 |

* Received 25 pounds cotton seed cake per head daily during September.

** These steers had access to 15 acres of native pasture during the month. They spent little time on the brome.

Arboriculture: The plowing of shelter-belt nursery tree stock commenced during the past week. The soil is extremely dry, which makes the operation difficult. The dry condition will also be very unfavorable for taking care of the trees when pulling operations commence next week. Notes and height measurements have been taken of all trees in the test blocks on the station. Many of the trees are now too high to be measured with any

of accuracy, which will necessitate the discontinuance of taking height data from the tall species in future years. Picking of buckthorn, boxelder, and Russian wild olive seed has continued during the week. Seed of black walnut, butternut, and buffaloberry has been stratified.

Visitors: F.D. Butch, Extension Entomologist, Bozeman, Mont.; Prof. E.J. Thompson, Animal Husbandry Division, N. Dak. Agricultural College; R.R. Graves, Dairy Industry, Wash., D.C.; J.M. Taylor, Extension Forester, Bottineau, N. Dak.; C.T. Carlson, County Extension Agent, Kidder County, N. Dak., with some 35 farmers and Club boys.

ARCHER:

During the past week the weather has been exceptionally pleasant. Considerable dew occurred. The wind velocity was at a minimum, which made it necessary to pump water with an engine. The weather was favorable for the drying of the shocked corn but unfavorable for the winter cereals.

Work at the station consisted mostly of digging a basement for a new granary and the hauling of gravel. To-day cement is being poured for the basement on which to place the old soils house when it is moved. To-day the spraying of white weed will be finished for this year.

Dr. G.H. Starr, University of Wyo., was at the station Sept. 29 harvesting the potatoes of the Potato Pathological Experiment.

Maximum temperature, 77°; minimum, 36°; precipitation, 0.16 inch.

AKRON:

Weather during the week was chilly the first few days, but much warmer toward the end of the week. Temperatures ranged from 37° to 77°, with 0.05 inch precipitation.

Work for the week consisted of seeding winter wheat plots; harvesting and threshing millet; harvesting Sudan grass, beans, and squash; and working the late winter wheat plots for seeding.

COLBY:

Cloudy weather prevailed most of the week. Two showers netted 0.28 inch of moisture. There has been no frost. All the crops are ripe or dried up, except in spots, so that a frost would do very little damage. The wheat seeded last week came up to fairly good stands on the fallow plots, but on the other plots it has not sprouted at all or just here and there.

Maximum temperature, 76°; minimum, 37°; precipitation, 0.28 inch.

Weather for Sept. - Maximum temperature, 97°; minimum, 36°; precipitation, 0.83 inch. Precipitation, 45-yr. average, 1.55 inches. Precipitation, 1932 to Oct. 1, 13.90; 45-yr. average, 15.74. Precipitation April 1 to Oct. 1, 1932, 12.61; 45-yr. average, 13.99.

DALHART:

Rather cloudy weather with four light showers prevailed during the week. The late summer plowed plots, after cowpeas, were plowed during the week. The moisture which has fallen during the past ten days has penetrated the ground only 6 or 7 inches. There is probably sufficient moisture to risk seeding wheat and rye, although there is no moisture in the soil, except on fallow, besides that which has recently fallen. The soil was too sticky to drill except on two days. On these days the orchards, vineyard, and tree plantings were drilled to rye. The rotation plots are ready to drill to winter wheat and winter rye and will be seeded the coming week unless rains prevent. A few plots of sorghums were headed, but the damp weather prevented further field work. Some racks were built and repairing done during the rest of the time.

Maximum temperature, 75°; minimum, 45°; precipitation, 0.90 inch. The total rainfall for September, which fell during the last ten days, amounted to 1.71 inches. September was the second wettest month of the year to date.

BIG SPRING:

Weather conditions have been very unfavorable for field work during the entire week. Although the amount of precipitation received has been very light, the general climatic conditions have been unfavorable for crop growth or the harvesting of crops. Cool, damp, cloudy weather with little or no wind movement has prevailed during this time. This combination of conditions has not permitted the fields or the crops to dry out sufficiently to do any work with them. Both feed and cotton are maturing very slowly; much of the earlier cotton seems to have grown bolls on it, but they are not opening to any extent.

The rainfall for the month of September has totaled 8.62 inches as compared to a 30-year normal of 2.19 inches.

Station work has consisted of hauling dirt for roads, making wire baskets for sorghum heads, and in putting in a concrete foundation for scales at the feeding plant.

Maximum temperature, 79°; minimum, 54°; precipitation, 0.14 inches.

WOODWARD:

The rainfall to date has run as follows by months: January, 1.06; February, 0.82; March, 0.46; April, 3.36; May, 2.33; June, 9.21; July, 0.34; August, 4.97; and September, 0.41. The absence of rain from June 29 to August 15 cut down considerably on the forage yield of sorghums, but grain yields on late-planted sorghums are above average. The wheat yields for this season were also above average. The season, all told, has been very satisfactory as to yields. Farmers usually plant wheat during September to insure pasture and to keep the sandy soil from blowing, but sufficient rain has not fallen in September this year to permit planting. There are few flowering plants still in bloom at this season, but noteworthy among them are the following; Caryopteris or Blue spirea, Salvia farinacea, Salvia greggi, Polygonum or Silver Lace Vine. The leaves of the Oregon holly grape are turning wine red and scarlet, and leaves of different trees are taking on characteristic autumn colors.

Work of the week has consisted of harvesting cowpeas, cotton, and sorghums. Jujubes and the last of the grapes were picked.

Maximum temperature, 79°; minimum, 43°; precipitation, 0.20 inch.

N O T E: Under date of October 3, 1932, Director W.W. Stockberger issued following memorandum:

"Section 213 of the so-called Economy Act approved June 30, 1932, provides, in part, as follows:

'* * * In the appointment of persons to the classified civil service, preference shall be given to persons other than married persons living with husband or wife, such husband or wife being in the service of the United States or the District of Columbia.'

"Until recently the Civil Service Commission has been requiring proof of marital status before appointments, reinstatements, transfers, promotions, or other changes of status of persons in the service were authorized. However, the duty of preliminary inquiry as to marital status has now been shifted to the Department, and the Civil Service Commission no longer requires affidavit as to marital status except in connection with reinstatements. Instead they are requiring that Civil Service Commission Form 124, or 124-B Field, "Declaration of Appointee," which contains information regarding members of family in the service, shall be submitted in connection with every appointment; temporary,

whether or not from the register, probational and permanent.

"In order to avoid bringing eligibles from a distance to accept appointment, only to find that because they have husbands or wives in the service of the United States or the District of Columbia they can not assume duty, the bureaus and offices should advise prospective appointees of the requirements of Section 213. In other words, the marital status of prospective employees should be ascertained before final steps are taken toward their appointment, and all recommendations to the Secretary for appointments, both temporary and permanent, either in Washington or the field service to positions in the classified Civil Service must carry the definite statement that the appointee's husband or wife, as the case may be, is not in the service of the United States or the District of Columbia.

"The inhibition against the appointment of persons with husbands or wives in the service when other persons are available does not apply to appointments in the unclassified or the excepted services."

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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 8 1932

MEMORANDUM FOR THE RECORD

DATE: [illegible]

TO: [illegible]

FROM: [illegible]

SUBJECT: [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

REPORT FOR THE WEEK ENDING OCTOBER 8, 1932.

JUDITH BASIN:

This week has seen a decided change in the weather. Rain and snow, together with a decided drop in temperature, has all the appearance of winter. The moisture will be of great benefit to winter wheat, especially that which has been seeded during the past two weeks. A crew of men has been busy during the week cutting corral poles in the mountains. The cutting of the poles was completed, but the change in the weather has prevented the hauling of about half of them.

Maximum temperature, 80°; minimum, 25°; precipitation, 0.45 inch.

HUNTLEY:

A hard freeze early in the week killed garden crops not yet harvested but did no injury to winter wheat or rye. Weather during most of the week was favorable for field work, and many clean up and repair jobs were completed. A wet, heavy snow started to fall on the evening of the 6th and has continued intermittently up to the present. Much of the snow melted as it fell, but there is still a good covering over the ground. This moisture should be of great benefit to fall sown grains. Winter wheat in this locality shows little change in stand or growth over the previous week. Seeding is still in progress on some of the larger farms where harvesting operations were late.

Maximum temperature, 80°; minimum, 25°; precipitation, 0.55 inch.

SHERIDAN:

Light precipitation fell over the first and the last of the week, with nice weather between. Potatoes were dug, and all remaining crops except beans, were hauled from the main station fields. Only a small proportion of the bean plants produced any seed. Light snow is falling to-day.

Maximum temperature, 79°; minimum, 29°; precipitation, 0.47 inch.

MANDAN:

Agronomy: Light rains fell on three days during the past week, but the quantity was not great enough to be of much value. Field work has been practically completed for the season. No real hard freeze has occurred to date. Ice has formed in a few cases, but a good deal of green vegetation still remains.

Maximum temperature, 82°; minimum, 23°; precipitation, 0.32 inch.

Cooperative Grazing Experiment: The steers are still on the pastures. The grazing season will close during the following week.

Arboriculture: The picking of Russian olive seed has been completed during the week. Pulling of nursery stock commenced in the middle of the week. The soil is extremely dry, resulting in a very poor job of plowing under the trees. Considerable difficulty is also being found in heeling-in the trees after they are pulled. A block of land has now been thoroughly irrigated for this purpose. Much of the tree stock is of small size and shows a poor lateral root development.

Horticulture: Owing to the very dry condition of the soil it was necessary to irrigate the nursery stock in preparation for digging. Otherwise it was very difficult to run the tree digger at a sufficient depth. Cutting out dead wood and pruning fruit trees has continued throughout the week. All vegetables with the exception of celery have now been harvested and stored. While the yield is considerably less than an average good yield, the quality and size is satisfactory.

The grounds are presenting an unusually attractive display of fall color, due no doubt to normal ripening of foliage. Russet hughes of sumac, Flowering currant, and woodbine blend harmoniously with the golden and bronze tones of Tartarian and soft maple, ash, birch, etc.; while the Silver poplar, Russian olive, and Chinese elm add splashes of vivid green and scintillating silver. The blue grass lawns are still green and in fair condition. Bromegrass and crested wheatgrass lawns have long been faded and brown, but they appear to be in good condition in spite of virtually no moisture since the 4th of July.

Visitors: Dr. H.L.Walster, and Prof.J.A.Munro, N.Dak.State College.

BELLE FOURCHE:

The first part of the week was abnormally warm for October, but two days of cold, cloudy weather followed. A couple of light rains were received, but the sky cleared late in the evening of October 4, and the first killing frost of the fall occurred, the temperature dropping to 24°. Clear, warm weather prevailed after the frost until Friday morning, when a slow drizzling rain commenced. The rain turned to snow late in the afternoon, and it has snowed steadily since Friday evening. The ground was covered with over two inches of snow Saturday morning, and 0.36 inch precipitation was recorded.

Visitors included A.L.Baker and S.L.Smith, Miles City, Montana.

Maximum temperature, 80°; minimum, 24°; precipitation, 0.63 inch.

ARCHER:

During the past week the weather has been favorable for field work. Two cool snaps have occurred, one of which is with us now. The other centered around the night of the 4th, when the temperature dropped to 25°. This period marked the end of the growing season. The maximum temperature was 79°. Only a trace of precipitation occurred. The dry weather has been favorable for the husking of corn but unfavorable for the winter wheat, which is in bad shape. Work at the station consisted of digging the basement for the new granary and husking corn.

Director W.L.Quayle, University of Wyoming, and M. F.Babb, Cheyenne Field Station, visited during the week.

AKRON:

Temperatures during the week ranged from very warm (85°) to cold (20°) with no two days alike in weather. The first frost of the season occurred the night of October 3, with a temperature of 29° followed by a very cold night October 4, with a killing freeze of 20°. Work consisted of cutting and shocking corn, harvesting grain sorghum, potatoes, and beans, and threshing date-test millet and the variety beans.

J.O.Tolliver, and H.B.Osland, Ft.Collins, Colo., were visitors this week.

NORTH PLATTE:

Extremely dry conditions continue. Total September rain fall on the table was 0.33 inch, and the total for October to date is 0.04 inch. Winter wheat on July plowing and fallow has continued growth, but there has been no emergence on corn land or late plowing after small grain. The first fall freeze occurred on October 4 with a temperature of 25°. Preceding that date there had been a considerable number of late flowers on the station, which had grown out since the hail of August 5. Milo has been topped, when this is threshed and weights recorded on sorgo, work on the D.L.A. project for the 1932 season will be complete.

COLBY:

The forepart of the week was cloudy and rainy, but only a trace of precipitation fell. The first frost of the season came on the morning of the

5th when the temperature dropped to 21°. This was followed by three days of warm and very pleasant weather. To-day it is cold and threatening. The cutting of the sorghums on the D.L.A. project was finished the day before the freeze. They were all ripe and dried up, except the milo on 153B which was still somewhat green.

Maximum temperature, 89°; minimum, 21°; precipitation, trace.

GARDEN CITY:

Weather continues dry and unfit for wheat seeding. No wheat seeding has been done on the dry-land station. Next week, however, we will seed regardless of whether we get rain or not. The first killing frost of the year came the night of October 4. The temperature went down to 24°, and all milo and kafir was caught. Many farmers are just beginning to seed, some however have finished. Wheat is coming up, but fields present a spotted appearance in many places. If weather continues dry very long, some wheat land will not be seeded but will go into row crops next spring. Miscellaneous row crops such as broomcorn, feterita, and sorgo were harvested during the past two weeks.

Maximum temperature, 90°; minimum, 24°; precipitation, none.

HAYS: (Report for the week ending October 1, 1932.)

The weather has been generally mild and quiet and very favorable for field work, except on Monday which was damp and chilly. All the winter wheat plots were drilled during the week, except those plots where the wheat is to be drilled on disked kafir ground or in standing kafir and corn stalks. The kafir is still too green to harvest, and both the corn and kafir stalks are so badly lodged it is impossible to drill wheat without running over the grain. It was decided best to husk the corn and head the kafir before drilling. After the grain is taken out of the corn and kafir the stalks will be thrown over, where lodged, to allow the drill to get under them. A generous supply of poison bran mash was scattered Friday to protect the wheat crop from damage by grasshoppers.

Maximum temperature, 78°; minimum, 43°; precipitation, 0.07 inch.

HAYS:

The weather has been cooler this week, and the first frost of the season occurred on the 5th. It was a light frost and killed only the most tender plants. Sorghums were lightly touched but not killed. During the week soil samples for moisture determinations have been collected from a large number of plots seeded to winter wheat, and a set of samples were collected from a series of seed-bed preparation plots for nitrate determinations.

Pink kafir on the project still contains a great many green heads but will now be harvested as rapidly as possible.

Maximum temperature, 88°; minimum, 32°; precipitation, 0.06 inch.

TUCUMCARI:

Typical fall weather has prevailed the past week, with cool nights, periods of rather high wind movement, and clear, sunny days. The minimum temperature recorded for the week and fall was 35°, and from many surrounding points there have come reports of a killing frost.

Harvest has progressed steadily, with all rotation kafir, sorgo, and Sudan grass plots cut and shocked, and with all D.L.A. milo plots headed. Some 50 grain sorghum plots have also been headed. The remainder of these, about 100 in number, will remain until ripe enough to head or until frost necessitates binding. In addition to the unharvested grain sorghum plots, there are still standing some half-dozen forage sorghum plots, still too green to harvest.

While frost seldom occurs before October 15 and usually not until after the 20th, station crops are in such shape that plot harvesting can be completed in one or two days time whenever frost necessitates.

Farmers in the wheat growing sections of eastern New Mexico report wheat in excellent condition, following the ten days of continual drizzle at the close of September.

Maximum temperature, 82°; minimum, 35°; wind velocity, 5.6 miles per hour.

DALHART:

The dreaded early 'first' frost came the morning of the 5th. With a minimum temperature of 29° all row crops were killed. The rather damp weather of the past 10 days, and the still clear night gave a very heavy coat of frost. The leaves on trees were apparently not killed. As all rotations were necessarily seeded late in June, on account of excessive rainfall in June, rather severe frost injury occurred to many of the milo and kafir rotation plots. Listed milo and kafir in the MC series were injured more than other plots. Listed kafir had very few heads showing any color, but listed milo was getting fairly well colored. The milo rotation plots in the West field were, for the most part, sufficiently advanced so that frost injury will be negligible. A few of the milo plots in the North field were practically mature, but others showed 10 per cent or more of green heads. The kafir rotations suffered the most. Just one or two plots of kafir were really mature. The other plots, except the listed ones, had from 10 to 90 per cent of green heads. Prospective yields of all plots were estimated to be equal to or better than average for the kafir. Grain sorghum varieties were all fully mature on the May 16 and June 1 dates of planting. On the June 20 date of planting in the variety test about one-half, or 10, were fully mature, and the others showed from 10 to 35 per cent of the heads to be green. Fargo and Wheatland milo, Reed and Pink kafir, Ajax, Dwarf hegari, Club kafir, and Grohoma lacked from 10 days to 2 weeks of reaching maturity. Dwarf and Texas Blackhull kafir were within a week of maturity. On the June 20 planting on fallow the same relative maturity as between varieties had been reached, but more green heads were noticed in the early maturing varieties. Only Chiltex, Sunrise kafir, and feterita could be classed as fully mature on the fallow block. Everything on which total weights are taken which had not already been harvested, except the milo in the West field, has been bound since the frost. The increase seed fields of Dwarf Yellow milo were practically mature while the increase seed fields of Dwarf hegari, Dwarf kafir, and Wheatland milo show from 10 to 25 per cent of immature heads. All except 6 or 8 strains of sorghums were mature in the grain sorghum nursery. The hardest hit project was the milo-disease nursery. Of the more than 800 heads of disease resistant milo which had been bagged, less than half was sufficiently advanced to escape frost injury. The cotton which had been held back by the unfavorable weather in June was also severely injured. None of the varieties which were planted after May 10 had any bolls open at the time of the frost. Soybeans were the only row-crop growing on the station which showed any frost resistance. All of the hay plots and approximately one-half, 30, of the grain plots had been harvested. Only 14 varieties were green, and they showed high resistance to frost injury.

The rye and winter wheat plots and the winter wheat varieties were seeded the first of the week. The grape picking was completed during the week. Harvesting of row crops was the rush work after the 5th.

BIG SPRING:

Weather conditions during the past week have been very favorable for field work, which was quite a contrast to that experienced during the previous two weeks. A light breeze accompanied by a few days of sunshine dried the fields

off so that considerable harvesting was done. Late feed is maturing rapidly, and cotton is opening now. Considerable picking was started during the week, which is about 30 days later than usual. Station work has consisted mainly of heading milo, and cutting Sumac in increase fields. A number of grain and forage sorghum varieties were also harvested. It is probable that some station cotton will be picked next week if the weather remains favorable.

J.M.Jones, Chief of the Animal Husbandry Department of Texas Expt. Station, spent several days here looking for cattle for the feeding experiments this winter.

Maximum temperature, 82°; minimum, 37°; precipitation, none.

LAWTON:

Nearly 10 days of cool and almost continuously cloudy weather terminated with a severe rainstorm October 3. Precipitation to the amount of 0.43 inch was driven by a north wind of such high velocity that foliage of all kinds was so badly whipped that it soon had the appearance of frost effect. The minimum temperature dropped to 36° on the 4th, and traces of frost were apparent in the low places. Subsequent weather has been clear, warm, and more or less windy.

Although cotton opened rather slowly during the cool, cloudy weather, the lint was badly discolored and dirtied as it was strung out through the plants, much of it being blown to the ground. This was especially true in the short staple, small boll, early maturing varieties and in the wide rows in the spacing test. The second picking, which has been in progress the past week, has been rather slow and tedious but is nearly completed. Very little cotton remains for the third picking in the rotation plots, the variety test, and in the early plantings in the date test. The final preparation of seed beds for small grains was completed as soon as possible after the rain, and seeding followed immediately. Wheat and barley rotation plots were seeded October 4 and 5, and the wheat variety test was sown on the 3rd. Seed beds were in excellent condition, and moisture appeared to be sufficient for satisfactory germination. The winter barley varieties, seeded Sept. 24, emerged to good stands October 1, Five varieties of winter oats, seeded Sept. 15, emerged rather slowly and unevenly, but finally made satisfactory stands. A winter legume nursery including 22 varieties was seeded Sept. 27. Peanuts in Rotation 392 were harvested Oct. 1. A good yield was produced, even though the nuts were rather small.

Maximum temperature, 81°.

WOODWARD:

Weather continues dry with occasional high winds and sifting soil. Many farmers who have waited until long after the usual date to plant wheat, are now "dusting it in". Some who did this early have had it germinated by light showers, and it has since died. A light frost on the night of the 4th killed leaf tips on some of the sorghums on the station. In some surrounding neighborhoods sorghums were killed by frosts. The station this year as well as in previous years has not been damaged by light frosts that affected nearby localities. This is particularly fortunate this season, as sorghums are ripening very slowly indeed. Their slowness in maturing is due to extended droughts in July and Sept. The leaves of the Chinese pistache, which are beginning to turn a dark wine red, are very attractive each fall. This tree seems well adapted as a distinctly attractive shade tree for the southern Plains, on well watered lawns. In unwatered soil it grows too slowly to be of value. The same may perhaps be said of Quercus rubra ambigua, the northern red oak, and of Quercus macrocarpa, the mossy cup oak. The only oak there has been much attempt to grow on the Plains is the pin oak, but this does not attain to the beauty it does where it is well adapted. It has usually proved an

emphatic failure.

Station work for the week consisted of putting up sorghum hay; harvesting cowpeas, cotton, and peanuts; repairing plot roads; gathering tree seed; picking apples; and grafting evergreens.

Maximum temperature, 90°; minimum, 34°; precipitation, none.

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 16 1912



REPORT FOR THE WEEK ENDING OCTOBER 15, 1932.

JUDITH BASIN:

Snowfall measuring 0.17 inch precipitation was received on October 8. This snow had disappeared from the ground by the 10th, and warm weather has prevailed since. Hauling poles for livestock pens was completed during the week, and work was started on rebuilding the experimental livestock pens. Some late seedings of crested wheatgrass and rye were made during the week.

Director F.B.Linfield, Mont. Experiment Sta., was a visitor this week. Maximum temperature, 69°; minimum, 15°; precipitation, 0.17 inch.

HUNTLEY:

The stormy weather of a week ago carried over to the first two days of the present week. Although the last few days have been clear, the ground has dried slowly. The moisture received penetrated to the depth of seeding and has sprouted more of the wheat and rye which has been in the ground since early September. The present soil moisture condition has stimulated more planting of winter wheat throughout this region, and much land that should have been left for fallow has been stubbled in. The fair to good crop of last season has increased interest in dry-farming, and some of the abandoned farms are again being operated this fall.

Maximum temperature, 74°; minimum, 19°; precipitation, 0.14 inch.

SHERIDAN:

Following snow and freezing weather over the first of the week, the remainder of the week was fair with moderate temperatures. Fall plowing was completed, with considerable difficulty. Moisture from previous rains and the snow over the first of the week, wet the ground only sufficiently to leave the surface loose for about two inches in depth. The plow could be kept in the ground at all only by running under the hard surface, nearly a foot in depth, while with some of the ground only the surface was scratched. No plowing has been done outside of the rotations, and none will be attempted this fall unless there should be sufficient moisture to wet the soil to plowing depth.

Maximum temperature, 77°; minimum, 20°; precipitation, 0.06 inch.

First killing frost, October 8.

DICKINSON:

Mild and generally fair weather continued through the first half of October, except for a snow and blustery period from the 7th to the 10th when about four inches of snow fell. Precipitation during the two weeks amounted to 0.67 inch. This moisture was badly needed for the soil became very dry during September. Husking of corn on the rotations was completed, and the corn was weighed. Yields averaged around 30 bushels per acre. The corn was better matured and contained less water than that produced for several years. Winter wheat seeded September 20 on the rotations to date has good stands only where seeded on fallow.

Maximum temperature, 84°; minimum, 21°; precipitation, 0.67 inch.

MANDAN:

Agronomy: The past week has been fairly mild for this time of year. A little snow fell early in the week. With moisture corrections the average yield of corn will be 31 bushels per acre.

Maximum temperature, 78°; minimum, 26°; precipitation, 0.02 inch.

Cooperative Grazing Experiment: The Grazing experiment closed for the season during the week. The final calculations are not complete, but the cattle will show about the usual shrinkage for the 15 days in October.

Arboriculture: The pulling of nursery tree stock has been continued during the week. The soil still remains in an extremely dry condition, which is very unfavorable for all types of tree growth to go into the winter stage.

Horticulture: Pruning of fruit trees has continued throughout the week. Plum borers seem to be increasing at the station, and are now found to be infecting about 10 per cent of all plum trees. Some of the infected trees are being treated with paradichlorobenzene, as recommended for peach borers.

ARCHER:

The weather, except for Oct. 9, has been clear, and since Oct. 11 it has been warm. Oct. 9 was cool and foggy with some snow. The temperature reached 18° that night. The precipitation, which preceded this temperature, amounted to 0.07 inch. The maximum temperature reached 77° Oct. 13. The continued dry weather has been unfavorable for the winter wheat that has emerged, and the soil is so dry that the recent dates-of-seeding are not emerging. Work at the station has consisted of finishing the husking of all experimental corn plots and the cutting of the stover and putting it in the silo. The potatoes were dug. This crop was a failure. At odd times the final digging of the basement for the new granary has been in progress. The late fall plowing of the rotation plots is under way. The soil is very dry.

Co.Agt.E.O.Johnson visited the station October 13.

AKRON:

Weather for the week ranged from cold to moderately warm. Sunday, Oct. 9, about a quarter of an inch of snow fell, with some drizzly rain, to make a total of 0.13 inch precipitation. Work for the week consisted of finishing the repair work on the superintendent's residence, seeding rate-and-spacing corn project winter wheat, shocking Akron white corn, and threshing date-of-seeding project beans. Two hundred twenty-eight sheep (lambs) under the State sheep experiment were received from Denver on Friday.

Maximum temperature, 81°; minimum, 22°; precipitation, 0.13 inch.

NORTH PLATTE:

Weather continues dry and mild. There was some cloudiness and a light fall of snow early in the week, but the remaining days have been clear. Tree leaves have put on fall colors, and a few leaves are beginning to fall. Recent determinations show nitrates to be low. In the surface six inches, fallows range from 13.3 to 28.4 ppm; early plowed continuous wheat, 9.2; late plowing, 7.1; stubble not plowed, 1.8; and corn stubble from 1.9 to 6.7.

The station was visited by Dean W.W.Burr, Chancellor Burnett, and several members of the Board of Regents on the 12 and 13th.

COLBY:

The dry weather continues. There was no precipitation this week except a trace of rain and snow on the 9th. There were light frosts on two nights, but most of the time the weather has been fairly warm. During the last three days the day temperatures have been above 80°. Winter wheat is up to fairly good stands on the fallow plots. Scattering plants are seen on a few of the others, but on most of the plots the grain is in dry ground in the same condition as the day it was planted. The corn plots were husked this week. The yields will run from zero to about 30 bushels per acre. The plot of pinto beans yielded three pounds of seed.

Maximum temperature, 84°; minimum, 30°; precipitation, trace.

GARDEN CITY:

Binding of all sorghums on the dry-land project was completed the past week. All wheat was seeded on the project on the 13th and 14th. Seedbeds, except fallows, are very dry. Much of the wheat will probably remain in the ground until sufficient rains occur to cause germination. Fallows have plenty of moisture to start germination. Weather continues dry with no indications of rain. Some farmers are seeding only a very small amount of their wheat land. Their idea is that under present conditions it is a waste of seed and added expense to put it into a dry, dusty seedbed. Undoubtedly much of the land intended for wheat will go into row crops or be fallowed next spring.

Maximum temperature, 85°; minimum, 32°; precipitation, none.

HAYS:

All wheat seeded previous to Oct. 1 came up promptly and looks very fine, the fields now look green from the road. Late seeded wheat, even on well prepared ground, is coming up unevenly because of the lack of moisture in the surface soil. Harvesting of sorghum crops has been in full swing on the projects, and some threshing has been done on the Cereal project. Harvesting on the commercial fields will be finished in a few days. Frost caught a small percentage of the Pink kafir on the Dry-Land project before it was mature. After the frost the kafir and milo was first headed and then the stover has harvested with a binder. Wheat to be sown on disked kafir and milo stubble was sown immediately after the crops were harvested. The weather has been very fine all week for field work. The first killing frost occurred on the morning of the 11th with a minimum temperature of 28°.

Maximum temperature, 85°; minimum, 28°; precipitation, 0.06 inch.

TUCUMCARI:

Temperatures the past week have been moderate, and no frost has occurred in this immediate vicinity. Sorghums that were left for more complete maturity seem to be ripening very slowly, so frost may necessitate binding the entire plant rather than heading. Threshing and corn husking could be started at any time, if it were not the case that sorghums in baskets are still somewhat tough and shocked corn is rather soft. Heading of increase milo, threshing and weighing bean plots, and well work have comprised the week's labor.

Visitors included Messrs. Horton and Jones of Bureau of Entomology, Wichita, Kans., G.B. Alguire, Bureau of Economics, Kansas City; and Wilson and Overpeck of New Mexico A. and M. College.

Maximum temperature, 81°; minimum, 39°; precipitation, none;
wind velocity, 5.2 miles per hour.

DALHART:

Rather cool fall temperatures prevailed during the week. The temperatures have been above freezing each night. The immature and almost mature heads have dried but little since the frost, so heading cannot go forward. A few plots were headed the first of the week, but heading of increase fields and bundles must necessarily wait. Winter wheat and rye plots are up to good stands. Winter rye, which was seeded for a cover crop in tree plantings, orchard, vineyard, and miscellaneous plantings, is also up to good stands. Rye in the vineyard and conifer plantings will probably furnish sufficient protection to prevent soil blowing. There is not sufficient moisture in the plantings where the trees are large to keep the rye alive for very long.

A large number of farmers will graze off their row crops. They are rather forced to take this method of harvesting for several reasons. Many fields that were planted late were not sufficiently mature to pay to hand head, other fields produced heads only in the lower lying areas of the field, and others were entirely too short for satisfactory binding.

An inquiry was received this week from a rather successful corn farmer in the sandy-type soil section of Dallam County for sufficient seed of Wheatland milo for planting 1,000 acres in 1933. He has always preferred corn to the grain sorghums but the severe infestation of Southwestern corn borer this year has caused him to wonder if he should not discontinue raising corn. This farmer reported from 1 to 5 borers in each stalk. This compares rather closely to the infestation of the corn plots on the station this year.

Maximum temperature, 87°; minimum, 38°; precipitation, none.

LAWTON:

Wheat, seeded October 3 and 4, emerged to good stands in most instances on the 12th. In the variety test, Denton was the only one that emerged slowly and unevenly. Only a very small percentage of the wheat drilled in cotton on the rotation plots has emerged. This condition will not likely improve without additional moisture. The September rainfall of 1.23 inches was 1.9 inches below the monthly mean, and the October rainfall to date is only 0.47 inch. These conditions, although favorable to the harvest of the cotton crop, are not encouraging to the farmers who want fall wheat pasture. Cotton picking has progressed quite steadily the past week, and the crop is coming to the gins rapidly. Pickers are receiving an average of 50 cents per 100 pounds, and most of the idle labor is employed at present.

A minimum temperature of 30° was reached on the night of the 10th, and a heavy frost was present the next morning. Only a part of the cotton leaves were killed, and but little effect is evident on any other vegetation.

NOTE:

Beginning with the month of November and continuing to and including the month of March, the station reports of this division will be issued monthly instead of weekly. Field men are requested therefore to discontinue sending weekly reports with that of October 29 and to submit their reports for each month beginning with November.

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 20 1910

THE UNIVERSITY OF CHICAGO

PHILOSOPHY DEPARTMENT

PHILOSOPHY 101

LECTURE NOTES

BY [Name]

DATE

CHAPTER

SECTION

TOPIC

DATE

REPORT FOR THE WEEK ENDING OCTOBER 22, 1932.

JUDITH BASIN:

Additional moisture in the form of rain and snow fell during the fore part of the week and will be of immense value to winter wheat. The snow all disappeared by Wednesday, Oct. 19, and the mud has dried from the fields and roads. The remainder of the dry land garden was harvested during the week.

Maximum temperature, 70°; minimum, 21°; precipitation, 0.47 inch.

HUNTLEY:

A wet snow fell during the first three days of the week and again soaked up the ground to the extent that no field work was possible. Wind and warmer weather during the last two days melted the snow gradually and no run-off occurred. Fall sown grains have seemingly made no growth over that of a week ago, and the stands on most plots are thin. Although soil temperatures have been higher than the air temperatures during most of the week, the wheat appears to need a number of clear, warm days to boost it along.

Maximum temperature, 62°; minimum, 12°; precipitation, 0.82 inch.

SHERIDAN:

Rain turning to snow the first of the week stopped all field work. At about the end of the storm the ground was covered to a depth of from 10 to 12 inches of snow where not drifted. A heavy wind following the snow drifted highways full and blocked the local highway until the drifts were shoveled out. Only miscellaneous work was accomplished during the week.

Maximum temperature, 62°; minimum, 12°; precipitation, 1.60 inches.

DICKINSON:

The most severe October storm of recent years hit this area on the 19th. This began as a light rain on the 18th which froze as it fell then turned into snow and continued all day on the 19th accompanied by a high wind. The snow drifted badly closing all highways and roads. Hundreds of telephone and power line poles were broken. The station was without lights only a few hours, but the telephone is still useless. Mild temperatures during the storm prevented severe loss to livestock. The snow has melted rapidly during the past two days, some of the highways have been opened, and teams are coming through over the fields. It is probable that some of the snow where drifted will not melt until spring. Some seed was cleaned and lignite hauled, but most of the time was spent in digging out from under the snow.

Maximum temperature, 77°; minimum, 17°; precipitation, 1.21 inches.

MANDAN:

Agronomy: Rain, sleet, and snow storms occurred during the past week. The heaviest rain since July 4 fell on the night of the 18th, when 1.44 inches of precipitation was recorded. The temperature was near the freezing point and ice formed as the rain fell. Everything was covered with a heavy coating of ice. A great deal of damage was done by the breaking down of wires and poles. The rain turned to snow on the 19th and nearly three inches of snow fell. This snow was accompanied by a high wind and much drifting took place.

Maximum temperature, 64°; minimum, 17°; precipitation, 1.57 inches.

Cooperative Grazing Experiment: The steers used in the grazing experiment were shipped to the N. Dak. Agricultural College on the 17th, just before the storm. The following table shows the gains of the steers for the last 15 days of the experiment, and for the season. The gains were above normal for the season.

| Pasture (acres) | Number of steers | Gain or loss per head in pounds | |
|-----------------|------------------|---------------------------------|----------|
| | | 15 days | 150 days |
| 100 | 10 | -9.5 | 325.5 |
| 70 | 10 | -16.5 | 315.5 |
| 50 * | 10 | -7.5 | 327.5 |
| 30 ** | 10 | 44.0 | 250.5 |
| Rotation (70) | 14 | -6.1 | 279.6 |
| Brome (28) *** | 10 | -3.5 | 317.5 |
| Reserve | 6 | 22.5 | 326.7 |

* These steers received 2.5 pounds of cotton seed cake per head daily during the 15 days, and averaged 1.68 pounds per head daily for the 150 days.

** Steers on reserve pasture during the 15 days.

*** Steers on small reserve pasture.

Arboriculture: All nursery fields have been cleaned of small and discarded trees preparatory to plowing. Prof. J.A. Munro, State Entomologist from the N. Dak. Agricultural College at Fargo, arrived on the 18th to fumigate and inspect the nursery stock. Fumigation was begun at once but had to be discontinued later owing to the heavy sleet storm on the 19th, which covered all tops with a heavy coating of ice and made the roots extremely muddy. Fumigation has now been postponed until spring.

The severe sleet storm of the 19th caused heavy damage to trees. Chinese elm shows the most injury, about 500 trees in the main windbreak having either the trunks or top branches broken off by the weight of ice. The wood of this species is extremely brittle, large trunks and limbs frequently snap off during periods of high wind. Damage in the species testing blocks was confined to buffaloberry, mountain ash, Chinese elm, and poplar blocks, which show many trees broken down. Several small branches were stripped off Scotch, Norway, and jack pine, and three Western Yellow pine were uprooted in the 4x4 and 4x8 conifer spacing tests. The tops of a number of larch, 12 to 15 feet high, were bent completely to the ground. They have now, however, straightened up and show very little evidence of damage.

Horticulture: The storm this past week broke many limbs in the fruit orchards. The branches were weighed down with a heavy layer of ice. It is planned to go over the orchards, cut off the broken branches, and paint the wounds with grafting wax. Seeds from hand crosses made in the greenhouse and field were planted October 19 and 20. There were 3,521 apple and crab seeds, 574 plum pits, 99 cherry pits, and a number of gooseberry and currant seeds. Trees in the nursery were pulled early in the week. A number of the plums were infested with plum borers.

Celery and other late vegetables were dug and stored the early part of the week. Golden Plume, as usual, was the heaviest yielder, but the stalks were inclined to stringiness and pithiness, and the quality was not as good as in other years. Fordhook again showed up as a first class sort; and Golden Self-blanching, while stalks were rather small, was of good quality. Horseradish, variety Maline Kren, was grown for the first time this year, and gave surprisingly good results. The roots are large and distinctly mild in flavor. Field work with vegetables and ornamentals was interrupted during the week by the heavy sleet storm and blizzard. While the moisture it brought was much needed by field plots and lawns, it caused considerable damage to trees about the grounds. Elms, both Chinese and American white, fared worst, but a few birches and silver poplar were also severely damaged, tops of 25-foot trees being broken squarely off 6 to 8 feet down. Lilacs, spireas and other shrubs still clothed with leaves, were flattened out on the ground, but most of them seemed resilient enough to escape much breakage. The moisture received should be sufficient to bring lawns, trees, and shrubbery through the winter in better condition than seemed possible two weeks ago.

BELLE FOURCHE:

The outstanding climatic feature of the week was a severe blizzard which started early Wednesday morning and continued throughout the day. Approximately seven inches of snow fell, but only 0.35 inch precipitation was actually recorded. The temperature did not drop below 22° during the storm, but an extremely high wind prevailed, and most of the snow accumulated in drifts, ranging in depth from two feet to nearly 10 feet. Many sheep and some cattle were buried in deep snow drifts, and heavy losses of sheep have been reported. All highways were blocked, and light, telephone, and railway services were crippled. Warm weather following the storm has caused the snow to melt rapidly, but it is doubtful if some of the larger drifts will disappear before spring. Husking of corn was commenced just prior to the blizzard and probably can be resumed again next week, as the snow has been removed from around all shocks. Fall seeded wheat and rye have germinated since the receipt of 0.72 inch precipitation in the heavy snow storm of October 8 and 9, and the grain is beginning to emerge.

Maximum temperature, 70°; minimum, 15°; precipitation, 0.39 inch.

ARCHER:

The weather has been rather erratic with warm and cold days interspersed. Both clear and cloudy weather occurred. A squall of snow and a sprinkle of rain made a total precipitation for the week of 0.12 of an inch. The temperatures varied from 75° to 10°. Work at the station consisted of hauling gravel and building material for the new granary and making the forms for the cement walls of the basement.

AKRON:

Weather for the week was somewhat colder than previously, attended by some unpleasant weather toward the end of the week. About half an inch of snow fell October 18th and remained until the morning of the 20th. Work consisted of seeding winter wheat in the rate-and-date experiment, threshing beans and soybeans, and threshing the kafir, sorgo, and other forage varieties.

Maximum, 80°; minimum, 15°; precipitation, 0.09 inch; 0.5 inch of snow Oct. 18.

COLBY:

It has been raining at intervals to-day, and the prospects appear favorable for a general rain. We have not had a rain of much consequence since July 20. The weather has been comparatively chilly and at times windy this week, with sleet showers on the night of the 18th. The sorghums were all hauled in and threshed. Some very good yields were obtained, especially on fallow. The milo yields ranged from zero on the surface planted plots to 59.2 bushels on fallow in rotation 155. The kafir yields ranged from zero on the surface planted plots to 47.3 bushels on fallow, M.C.C. The feterita, which is all listed continuously, yielded from 12.6 to 15.2 bushels. The Sumac sorgo, which is listed after winter wheat, ranged from 1.4 to 21.1 bushels. The grain was mostly of good quality for grain sorghums in this section of the State. Some of it was rather badly shriveled on account of the dry weather.

Maximum temperature, 81°; minimum, 21°; precipitation, 0.03 inch.

GARDEN CITY:

Wheat seeded last week is just beginning to come through the ground on fallow plots. Continuously cropped plots are so dry that germination has not started. In some communities as much as 50 per cent of the normal wheat land is not seeded, because of dry seed bed and scarcity of operating funds with which to handle the work. In other sections 75 to 85 per cent of the normal wheat area is now seeded. Very little wheat is any more than up, and much of it is still lying in a dry dust. Moisture samples taken on the MC wheat plots on the 20th

show no indication of any moisture available to plants on the continuously cropped plots. Alternate fallow has only a fair amount of moisture for the entire 6-foot zone. During the night of the 21st we had the first rain of any value to crops for over two months, 0.84 inches fell in a slow drizzle, all of which soaked in. It will be sufficient to bring all wheat up that was lying in a dry, dusty seed bed.

Maximum temperature, 88°; minimum, 23°; precipitation, 0.89 inches.

HAYS:

The weather has been favorable for field work all week, except to-day, the 22nd. Rain commenced falling during the night and has continued during the day with intermittent showers which amounts to 1.57 inches by 2:30 this afternoon. During the week corn fodder was moved off the plots, weighed, and unloaded in piles for husking. Some of the fall plowing and listing was done. The ground turned very hard and broke up in chunks much the same as it does in extremely dry times, except the chunks are not so large. The ground was not so dry, but it turned hard largely because of the torrential rains during the late summer and early fall. The rain which fell last night and to-day has practically all gone into the ground, and although it will delay sorghum threshing a few days, it is very fine on the wheat, some of which is slow in coming up.

Maximum temperature, 82°; minimum, 28°; precipitation, 1.57 inches.

TUCUMCARI:

No killing frost has occurred, although a temperature of 34° the morning of Oct. 19 frosted crop leaves to some extent. Harvesting of all sorghums was completed the 20th, and peanuts were dug and cocked the next day. All crops are now dug, cut, or headed, but no threshing has been done. In temperatures, evaporation, and precipitation the year 1932 has to date quite closely approached the long-time average. Distribution of rainfall was somewhat unfavorable, and a deficiency late in the season greatly reduced yields of most crops, especially corn and cowpeas. In contrast, precipitation in spring was so torrential and included so much hail that stands were in many cases deficient. Yields were low and moisture deficiency quite extreme over a large part of the surrounding territory, but local showers in some neighborhoods produced at least average crops. Generous rains over this entire area the past month were too late to aid row crops to any extent, but they have speeded wheat growth until prospects in eastern New Mexico are very favorable.

Precipitation, Jan. 1 to September 30, 15.25 inches; 27-year average, same period, 14.13 inches; precipitation, Oct. to date, 0.52 inch;
Maximum temperature, 85°; minimum, 34°.

DALHART:

High winds the first three days of the week dried out the surface soil and filled the woven wire fences and shrubs with sorghum leaves. There was some soil movement, though but little damage was done. The final counts on the milo-disease nursery were made during this time. Other field work accomplished during the week included: Selection of heads from resistant milos in the disease nursery, completion of head selection in the sorghum nursery, heading of the increase fields of Dwarf Yellow milo and of increase plots and seed heads of Sedan kafir, picking of cotton varieties in the nursery, taking the cured hay weights for both soybean nurseries, and threshing on parts of two days. Yields are lower than had been anticipated. The low yields on the early plantings is attributed to dry weather and on the later plantings to a combination of dry weather and early frost. Although 130 plots have been threshed and cleaned, yield comparisons are not available. Apparently the highest yielding plot on

cropped land on the station will be some increase plots of Sedan kafir which show a yield, subject to correction, of 35.3 bu. per acre. These plots were planted June 21, which was the last day that yield plots were seeded this year. The maturity of the Sedan kafir is shown by test weight of 61 pounds per bushel, which is higher than that of any of the 20 grain sorghums in the June 20 date-of-planting. A rain of 0.73 inch was received Friday afternoon and night. This rain stopped threshing but was badly needed for the rye in the tree plantings, where the rye was starting to die.

Maximum temperature, 84°; minimum, 27°; precipitation, 0.73 inch.

BIG SPRING: (REPORT FOR THE TWO WEEKS ENDING OCTOBER 22, 1932.)

Although the amount of moisture received was negligible, a number of days during the past two weeks have been misty and cloudy. This prevented harvesting to any extent and slowed up the maturity of sorghums and the opening of cotton. Most of the cotton plots in the rotations have been picked over but that in the spacing and varietal test has not yet opened. Heading of milo in the rotations was completed during the week, and most all plots in the date varieties were harvested.

Maximum temperature, 87°; minimum, 43°; precipitation, trace.

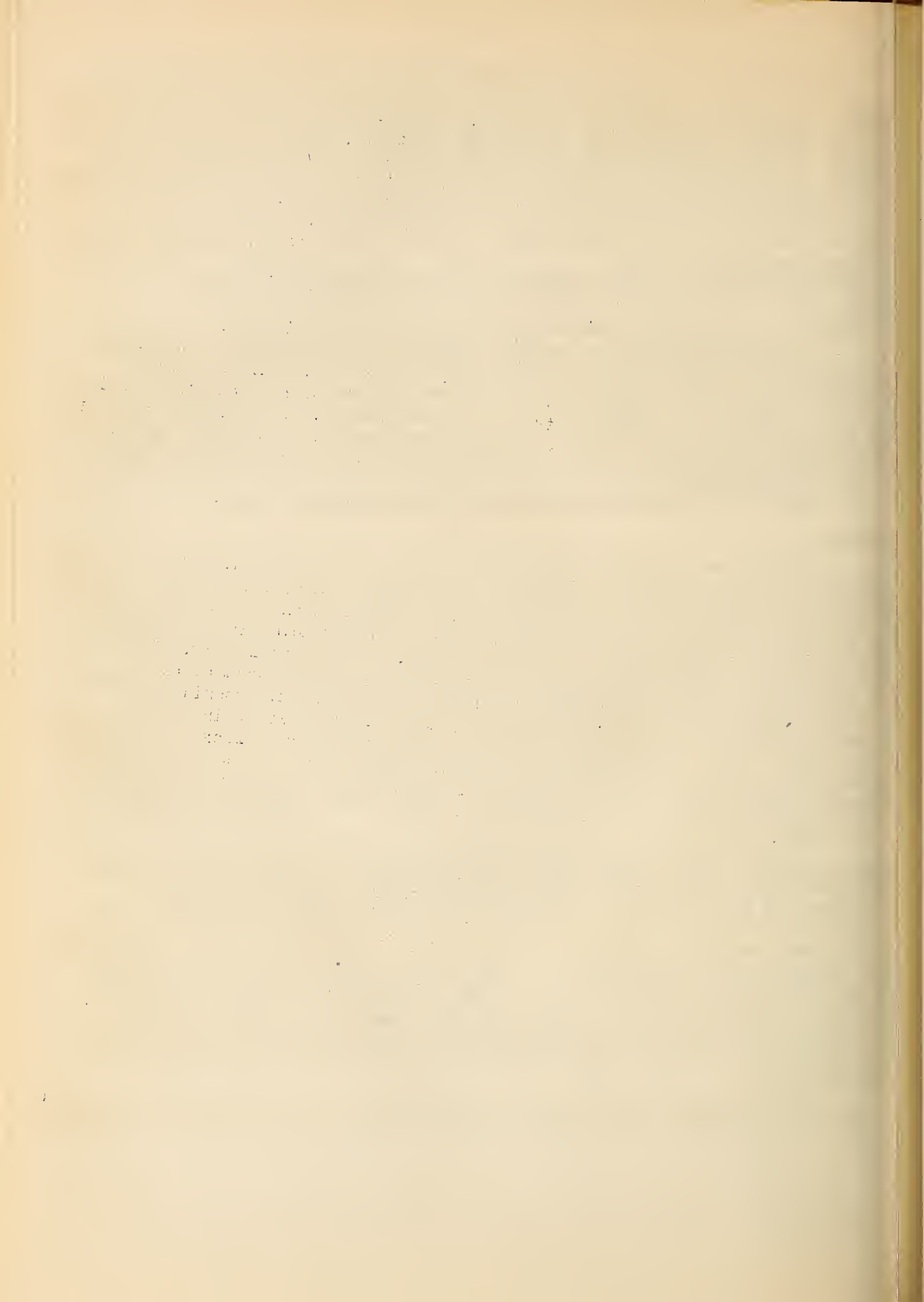
WOODWARD:

Weather has continued dry and warm until to-day, when the sky is cloudy, showers are falling, and the temperature is dropping. Many farmers have lately planted wheat in dry soil, while much of that planted at the usual date, about the middle of September, is dead from drought. Farmers have given up serious hope of wheat pasture, which when good is so valuable for milk production. Wheat and oats seeded early on the station roads and in the orchard to prevent soil blowing are dead, except where the soil was firm and had considerable moisture. Wheat planted on the Cereal project in October is up in some instances, the stand being especially good on fallow. The Dry Land rotations have not yet been planted. It is planned to seed them the coming week with the furrow drill unless enough rain occurs to allow of surface planting. Sorghums have taken an excessively long time to ripen, but for the most part are finally maturing fairly satisfactorily.

There is a rather a dearth of ornamental material in the garden at present. However, the fruits of the several Celastrus are beginning to burst and become showy. Those of the European Euonymus, similar to those of Celastrus, but larger and rosy red in color, are beautiful, though still half hidden by the foliage. Though slow growing, this is one of the best small trees for the yard, because of its rich, healthy foliage which turns a dark red in fall, as well as for its fruits. E. bungeanus is less stiff and more shrubby and one of the most graceful of plants, but at Woodward has fruited scantily. The common Snowberry, with its large waxy white berries is now at its best. The small leaved Pink Snowberry (*Symphoricarpos microphyllus*), much advertised as superior to the common native coralberry, has proved here to be a shy bearer of fruit.

Work of the week has consisted almost entirely of harvesting the sorghums. Maximum temperature, 91°; minimum, 35°; precipitation, 0.01 inch.

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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

THE UNIVERSITY OF CHICAGO

PHILOSOPHY DEPARTMENT

PHILOSOPHY 101

LECTURE NOTES

BY [Name]

REPORT FOR THE WEEK ENDING OCTOBER 29, 1932.

HUNTLEY:

The weather has been damp and cloudy most of the week as a result of one measurable shower. Some progress was made on corn husking, but no other field work was attempted. Winter wheat is showing increased stands on the experimental plots and also in neighboring fields as a result of the recent moisture, which has penetrated to the depth of seeding and sprouted more of the grain. The older plants have made a little growth but are still below normal in appearance.

Maximum temperature, 69°; minimum, 16°; precipitation, 0.08 inch.

SHERIDAN:

Weather conditions remained unsettled and cool over the entire week except for one day, when it was quite warm. Only miscellaneous work was accomplished during the week, hauling shale, putting the corral in readiness for winter, etc. The snow that fell last week has disappeared, except for the remains of the drifts.

Maximum temperature, 63°; minimum, 19°; precipitation, 0.28 (rain & 3" snow).

DICKINSON:

The weather was unsettled with light rain or snow on five days. The heavy snow of last week melted some every day, and a few bare spots are showing in the fields but many deep drifts remain. Roads are still in bad condition although most of them are passable. To date in October 2.12 inches of precipitation have been recorded. This amount exceeds that received in any October since 1924 and has been exceeded only in four of the 40 years of record at Dickinson. Precipitation to date in 1932 amounts to 16.09 inches, or 0.52 inch above the 40-year mean for the whole year. Lignite was hauled, seed was cleaned, and miscellaneous jobs were done. Some ash seed was picked.

Maximum temperature, 43°; minimum, 18°; precipitation, 0.25 inch.

MANDAN:

Agronomy: The past week was stormy with light rain and snow. Reports from some areas of the State indicate that roads are again blocked. The ground is frozen on top for the first time this fall. The North Dakota State Corn Show, held at Bismarck, closes to-day. The quality of corn exhibited this year was the best that has been displayed since the show started in 1923.

Maximum temperature, 57°; minimum, 21°; precipitation, 0.21 inch.

Arboriculture: The plowing of nursery fields was completed during the week. About 20 pounds of redcedar seed has been picked and the pulp removed. Cuttings of Northwest poplar are now being made from the tops of nursery stock and from material taken from the cutting block. The flailing of boxelder and ash seed to remove wings and the seed from stems is now in progress. Moisture conditions during the past two weeks will undoubtedly be of considerable help in preventing trees from going into the winter in an extremely dry condition.

Horticulture: Nursery stock in the nursery and seedbeds has been dug and heeled-in for the winter. Raspberries, grapes, and buds have been covered with soil for winter protection. The grapes were pruned just before being covered. Hardwood cuttings of grapes, currants, and gooseberries are being made. Success with these cuttings seems to depend largely on the amount of watering they receive in the spring and early summer. The formation of a callus before planting seems to be of minor importance. A part of the plum seed gathered last summer has been planted, but most of this seed was buried in sand and will be planted next spring.

ARCHER:

The first half of the week was cold and blustery. It then warmed up but October 28 was cold. These conditions have not been favorable for winter cereals but have been of aid to livestock in that the range has been open. The total precipitation for this year to date is 9.66 inches. Of this amount 2.29 inches consisted of hail during June. The 19-year average for the period is 13.45 inches of precipitation. Work at the station has consisted of moving the old soil house, making forms, and pouring cement for the basement walls of the new granary.

Maximum temperature, 65°; minimum, 13°; precipitation, trace.

AKRON:

Weather for the week was cold. The third snow of the season was received the night of the 23rd, totaling 1.50 inches. The end of the week was marked by a drop in temperature with a cold northwest wind. Owing to the inclement weather soybean threshing was undertaken indoors. H.B.Osland, Asst. Animal Husbandman, and J.O.Toliver, Asst. in Animal Investigation, Colo. Agricultural College, were at the station on Wednesday, Thursday, and Friday to start the experiment in lamb feeding. Practically all station work for the week was incident to this and consisted of hauling in feed, preparing lot pens for the sheep, building corrals, pens, feeders and chutes, grinding feed, and weighing the sheep. Dr.D.W.Robertson, Assoc. Agron., and J.N.Spencer, Asst. Agron., Colo. Experiment Station, called Thursday in connection with the cereal investigations.

Maximum temperature, 68°; minimum, 15°; precipitation, 0.23 inch(1.50" snow).

COLBY:

The weather has been rather unsettled this week. The general rain which appeared to have arrived last Saturday turned out to be only a series of very light showers. The total precipitation was less than a third of an inch. This was not enough to bring up the wheat that so far has laid in a dry seed bed. In places the moisture has penetrated far enough, however, to swell the grains. This puts the crop in a precarious condition, similar to that which existed last fall, with no moisture to keep it going after it sprouts. Even on summer fallow fields the stands appear to be thinning out. Frequent high winds also threaten further damage. Grasshoppers are still fairly numerous.

Maximum temperature, 72°; minimum, 17°; precipitation, 0.31 inch.

GARDEN CITY:

Station work the past week has consisted of getting machinery in readiness for threshing sorghums. Bundle sorghums are too tough for threshing, stalks contain a large amount of sap, and the leaves are dead. Next week we will top all the bundle sorghums and thresh the heads. Wheat is coming up to very good stands on fallow plots, and continuous or cropped plots are beginning to show up. The 0.84 inch of rain on the 22d was enough to bring all wheat up, though it is slow in getting started.

Maximum temperature, 79°; minimum, 22°; precipitation, none.

HAYS:

The weather during the past week has been generally fair--with frost temperatures most every night. The ground was too wet for tillage work during most of the week. Threshing of the sorghum crops on the project was done during the last part of the week. The yields were generally very good. The highest yield of kafir was 73.9 bushels per acre. Several plots made yields above 60 bushels. The lowest yield was 10.2 bushels per acre.

Maximum temperature, 75°; minimum, 24°; precipitation, none.

TUCUMCARI:

The first killing frost occurred on the morning of October 25 - 32° - and this was followed the next morning by a minimum of 29°. Days have been warm

and clear with a maximum temperature of 79°. Threshing has begun, and both kafir and milo yields promise to be slightly lower than usual. Rotation milo will no doubt average in the low twenties, while rotation kafir may closely approach the long-time average of approximately 19 bushels. Late date-of-planting plots will not be ready to thresh for some time, but several days threshing of early plots remains to be done. Corn will be husked and cotton picked as soon as possible. Wheat is in excellent condition in eastern New Mexico. Row crop yields are generally light, and it is doubtful if much milo or kafir will be threshed for sale until the price goes considerably above the 25¢ per cwt. now offered.

The first rabbit injury to trees treated with sulphur-linseed oil preparation was noticed to-day. No damage has been seen on small evergreens which were sprayed with the above preparation diluted with turpentine, but a few Chinese elm painted with the undiluted solution have been worked-on extensively, although not completely girdled. The solution was applied five weeks ago, so if its effectiveness continues for only about one month, five or six applications in fall, winter, and spring will perhaps suffice to prevent injury. An abundance of alfalfa and wheat are available for rabbit consumption, so it would seem this attack on treated trees shows the deficiency of another "sure-proof" rabbit repellent.

DALHART:

The past week has been characterized by rather unfavorable weather for threshing. The mist at the fore part of the week together with the rain of the last week-end, prevented threshing. It was much too windy for safe threshing until Friday afternoon and this morning. Work has been possible on outside projects during the week. Among the various jobs accomplished has been the picking of the cotton on the date-of-planting series, picking of corn varieties and corn rotations, harvesting of increase seed fields of grain sorghums, harvesting one series of the sorghum nursery, final counts in the sorghum smut nursery, weighing the last of the cowpea plots, and a few miscellaneous jobs including about six hours of threshing.

Maximum temperature, 80°; minimum, 27°; precipitation, trace.

BIG SPRING:

Weather conditions during the past week have been such that field work was possible during the entire time. Temperatures have been considerably cooler. Much cotton and feed stuff was killed by this frost in parts of the county, but crops on the station and farms surrounding it were not injured. Even the most tender plants on the station were not hurt. Harvesting increase Sumac, picking cotton, and heading milo have occupied most of the time of the station force during the week. The third cutting of Sudan grass was also made on the plots.

Maximum temperature, 80°; minimum, 31°; precipitation, none.

WOODWARD:

Compared to precipitation at other times during September and October, that of the past week was heavy. It amounted to 0.59 inch. It came gently over several days and did not pack the soil. Wheat planted in dry surface soil, with plenty of moisture deeper, will now doubtless come up to a good stand and get along all right. Rotation plots, none of which had been planted, were planted during the week and as much of the remainder of the farm as possible. This is the latest the wheat rotation plots have every been planted. To have put seed in the ground earlier, however, would, it is believed, have resulted in the most chaotic results. No killing frost has yet occurred and many of the branch heads which come on sorghums after August rains have ripened. Some of these are small and will be left in fields to be harvested by wild ducks and geese during spring months. Large flocks of these wild fowl will camp in any kafir or milo field where there is much waste grain.

One plant of Alligator juniper which it was supposed might be tender came through last winter nicely and is making rapid growth this fall. One plant of an unidentified juniper from China obtained through the F.P.I. Office several years ago is making a splendid showing. The scopulorum juniper is doing very nicely. These three junipers, all with more or less silvery foliage, add more in individuality than in numbers to the landscape material of the southwest.

Maximum temperature, 81°; minimum, 31°; precipitation, 0.59 inch.

N O T E:

Beginning with the month of November and continuing to and including the month of March, the station reports of this division will be issued monthly instead of weekly. Field men are requested therefore to discontinue sending weekly reports with that of October 29 and to submit their reports for each month beginning with November.
