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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 7 1922

REPORT FOR WEEK ENDING OCTOBER 7, 1922.

ARCHER:

Dry weather has continued throughout the week. The temperatures have been variable, the minimum, 29 degrees, occurring this morning.

The season's work at the station will be completed today and the farm labor will be discharged.

The fall plowing was accomplished during the week. Wherever the work was accomplished with any degree of success the soil turned up in great clods. Fall plowing on Rotations 40 and 49 was practically nil.

Final field work with sunflower selections has been completed and the heads stored. The potato crop was very poor. The hail which came late in the season greatly weakened them and this followed by a drought caused a light crop.

COLBY:

Work during the week included harvesting of sorghum varieties and fet-erita and kafir plats on the D. L. A. project. The date and method of planting sorghums were harvested this week also. This year feterita will evidently out-yield the other grain sorghums as the dry weather of August and September did not cut the yield as on the other sorghums. All varieties of milo lodged badly and were very difficult to harvest.

Field work, other than harvesting of sorghum, consisted in harvesting and field note-taking on the corn breeding work with Colby Bloody Butcher corn. Profs. J. H. Parker and H.H.Laude, of the Kansas State Agricultural College, assisted in note-taking and classification on the corn breeding work from Tuesday to the end of the week. Mr. B. B. Bayles of the Hays station assisted with the corn work today, Saturday, and will put in a nursery test of 358 crosses of winter and spring wheat the first of next week.

Weather continues warm and dry, the evenings toward the last of the week are getting cooler and frost can be expected soon.

Some wheat on summer fallow is coming up; not more than 10% is showing up on any one plat, however. The wheat false wire worm continues to do damage on some commercial fields in this section of the State.

BELLEFOURCHE:

The weather continues dry and warm. The first killing frost of the season occurred on the night of October 7 when the temperature dropped to 25 degrees. This frost did practically no damage as all crops were mature.

Field work on the dry-land plots has been completed except for subsoiling one plot. The potatoes were harvested during the week. Only a low yield was secured.

Maximum temperature for the week 92 °, minimum 25°, precipitation .04. The rain of .04 inch on October 6 was the first measurable amount of rain that has fallen since August 10.

DALHART:

Climatic conditions have remained practically unchanged here during the last week. A small shower occurred on the evening of Sept. 30 which netted 0.28 inch. Barely enough fell, however, to permit of plowing plat A for winter rye. The rest of the week has been rather cool. Two days were quite hot during mid-day but were cool in morning and evening.

Work during the week has consisted of a continuation of repair work on buildings, repairing and extending water mains, and harvesting of crops. During this week nearly all of the experimental plats were harvested. There are only six plats remaining to be harvested and these will not mature before frost, so will be left until they either mature or frost gets them. The bulk of the harvesting was completed sooner than was expected. The earlier harvested feed for the work stock has been hauled and stacked in the hay loft for winter and spring feeding. Peanuts on rotation 293-B was harvested this week. The other varieties of peanuts will be harvested the first of the week.

GARDEN CITY:

High wind velocity and comparatively low temperatures have prevailed throughout the past week. Crops that are still standing continue to dry up. All crops will be harvested by the close of the coming week. No winter wheat has been planted except that in the date-of-seeding test. The fourth crop of alfalfa on the general fields was harvested this week.

Evaporation for the six months period ending October 1 was 57.69 inches; which is the second highest amount of evaporation recorded in the past 14 years. It is 4.791 inches greater than the 14-year average. The rainfall for the same period was 11.79 inches or 1.07 inches below the 14-year average.

Maximum temperature, 91; minimum, 39; precipitation, 0.

HAYS:

Dry, cool weather continues. Threshing of the sorghums on the Dry Land plats was finished Thursday, the 5th. Last cutting of alfalfa, which is very light, was made on the alfalfa fertilizer experimental plats Saturday. This is the fourth cutting on the bottom land although all but the first crop were very light. Only one crop was harvested on the high land during the season.

MANDAN:

Agronomy.

The past week has been favorable for field work. The temperatures have averaged about 11° above normal for this time of year. It is colder today, with a high wind.

Maximum, 90; minimum, 36; precipitation, 0.

Potatoes in the rotations were dug during the week. Rotation 75 yielded 160 bu. per acre, and rotation 76, 179 bu. per acre. The potatoes were of very good quality, and over 90 per cent marketable.

Practically all alfalfa on the station has made a good fall growth, and will go into the winter under very favorable conditions.

MANDAN, Con't.:

Arboriculture.

A bushel of black walnuts received recently from Fargo have been stratified and placed in the root cellar preparatory to planting next spring. Reports from the cooperators to whom black walnut seedlings were sent this year indicate that so far the growth has been very promising, but winter conditions have not yet been figured with, and it is quite possible the tree will prove useless for our purpose.

Seed of the Blue beech and Ironwood received from Prof. J. T. Wentling, of Lake Itasca, Minn., has also been stratified, and will be planted next year.

NORTH PLATTE:

Dry weather has continued. There have been several threatening days during the week, but the total precipitation has been only a trace. Temperatures have dropped during the last two or three days, but the lowest minimum was only 37 degrees, so that no killing frost has as yet occurred.

Potatoes on the D. L. A. plats were dug during the week. Half of each of the six plats were planted in the spring with Early Ohio seed which had been grown on the Station for about five years. The other half was planted with Minnesota Early Ohio seed. The average yield from the home-grown seed was 92.2 and that from the Minnesota seed 153.5 bushels per acre. The plat on summer tillage yielded 133.3 bushels per acre from home-grown seed and 249.7 bushels per acre from the Minnesota seed.

W. W. Burr visited the station during the week.

TUCUMCARI:

Cotton was picked the second time this week. The yield this season will be approximately one-eighth bale per acre. Interest in cotton growing has revived this year in this locality and about three thousand acres were put out in the county. Farmers estimated their yields at a quarter to a half bale until a few weeks ago, when estimates dropped markedly. Examination of a dozen or more fields indicated that the average yield would be around one-eighth bale, or about the same as the Station cotton. This Station conducted much work with cotton years ago, but it was apparent this crop was not adapted to Quay County, so much of the work was discontinued. It is hoped farmers will hold to the more certain crops, although much cotton propaganda is being put forth by men who have land for sale.

All corn and sunflower plats were gone over with the cowpea harvester, and the stubble raked, hauled and burned in an attempt to kill the larvae of the borers which are infesting corn and sunflowers. The borer hibernates in the tip of the tap root and the harvester was run deep enough to cut below this.

Late date plats of several grain and forage sorghums were cut and shocked during the week.

TUCUMCARI, cont'd.:

Threshing was begun Thursday; all kafir in rotations and M. C. plats has been threshed. Yields will run below 10 bushels except on the fallow plats; these will go between 10 and 15 bushels per acre. Stover will be exceptionally good feed this year, for the kafir was cut rather green and practically no rain has fallen since harvesting. In fact, very little rain has fallen since planting.

Maximum temperature, 92; minimum, 52; precipitation, 0; average wind velocity, 3.9 miles.

WOODWARD:

The past week has been fairly warm with no precipitation until the night of the 6th.

Wheat, which is up, has been making very good growth, but the soil was getting rather dry for sowing. Several varieties of wheat and rye were planted in variety test early in the week. Most of the week has been spent in harvesting rowed crops and filling silo.

The total yield of about 80 varieties of grapes in the vineyard, covering about 2 acres, was about 10,500 pounds.

Maximum temperature for the week	90
Minimum temperature for the week.....	51
Precipitation for the week27
Average hourly wind velocity for the week....	6.3

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W E E K L Y S T A T I O N R E P O R T S

OF THE OFFICE OF

D R Y L A N D A G R I C U L T U R E I N V E S T I G A T I O N S

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 14 1922

REPORT FOR WEEKING ENDING OCTOBER 14, 1922.

ARCHER:

The work at the station is complete except for the date of seeding winter wheat and two days' labor around the yards.

The Superintendent has considerable work with nursery grains before beginning work on the annual report.

Maximum temperature 73, minimum 25; precipitation 0.

GARDEN CITY:

The first killing frost of the season visited the station on the night of the eighth when the temperature dropped to twenty-six. A temperature of thirty was recorded the night before, but that frost was not severe enough to damage anything except the most sensitive plants.

Field operations for the week have consisted of cutting the sorghums that were left standing when the frost came, and preparing the plats that are to be seeded to winter wheat. The seed bed is very dry and rather loose, but prospects for rain do not seem to be improving so it was thought best to get the wheat in the ground while seeding is possible.

Maximum temperature 85, minimum 26; precipitation 0.

HAYS:

Weather conditions remain unchanged except for a shower of .14 inch of rain which was not quite enough to lay the dust.

Work during the week has consisted largely of repairing, and hauling sand for construction work.

HUNTLEY:

The bright and settled weather of the past month has been succeeded by cloudy, windy days with occasional traces of precipitation during the last part of this week. As yet no rainfall of consequence has fallen and winter grains are, for the most part; ungerminated.

Field work has consisted of harvesting potatoes, fall plowing and hauling corn preparatory to husking. Fall plowing is very nearly completed. In nearly all cases the ground has turned up very dry and cloddy; so dry in fact that a disc has had little effect in reducing the lumps.

The hogs were removed from the acre of corn which they have been pasturing for the past month. Eight pigs constituted the lot this year and their average daily gain was about a pound each. The yield of corn on the pastured plat was very good this year and the hogs cleaned it up thoroughly as none was wasted by being covered with snow as has happened before.

Maximum temperature 78, minimum 25; precipitation, Trace.

MANDAN:

Agronomy.

Part of the past week has been cold and windy. The first killing frost of the season occurred on the night of the 7th, when the temperature dropped to 26. The frost free period for the season was 165 days or 38 days above the average. This is also the longest frost free period that has been recorded since the station was established.

Maximum temperature 75. Minimum 19. Precipitation 0.

There has been no precipitation for about a month, and as a result it is again very dry. Soil blowing has occurred during the past week. However, no serious damage has resulted in the plats.

Corn in the rotations was husked during the week. The average yield in the Main field was about 33 bushels per acre. The yields ranged from about 25 to 41 bushels per acre. Spring plowing will average six to seven bushels higher than fall plowing. The yield in the South field was less than the yield in the Main field.

A four-roll corn shredder was used for the husking this year. This method was very satisfactory. It required less men and less time than hand husking. The machine shelled about 10 per cent of the corn, which was recovered at the machine. The corn was entirely dry and in ideal condition for cutting.

Arboriculture.

Three grain sacks full of Russian Olive seed were gathered from hedges and groups on the station grounds. Before running this seed through the fanning mill the weight was 140 pounds, and after cleaning 104 pounds. This seed was stratified preparatory to planting next spring. About a quart of seed was collected from a block of Basswood of American linden.

Levels were taken on one of the fallow plats in the shelterbelt nursery and uniform grades figured preparatory to smoothing the surface for irrigation.

Digging of nursery stock for the cooperative shelterbelt planting next spring began Saturday morning, October 14.

Horticulture.

Potatoes have been harvested, and give yields considerably above the average. Pink Eye, from Montana seed gave an average yield of over 300 bushels to the acre, and was the highest yielder in the variety test. Seed of four standard varieties obtained from Maine gave higher yields than seed of the same varieties obtained from North Dakota. Most of the varieties that have been grown at the station for a number of years appear to be run out, off type, and gave comparatively low yields. A considerable amount of disease was present in the station grown seed.

In the distance of planting test, the 14 inch spacing gave decidedly higher yields of No. 1 tubers, than either 20 inch spacing or 28 inch spacing, for all varieties tested.

Mandan, Continued:

Celery has been harvested and stored in the root cellar. Canna roots have also been dug and stored for the winter. The acre garden has been cleaned up, and manure is now being applied.

Trees in the nursery are not yet dropping their leaves, and it may be necessary to strip them at digging time.

SHERIDAN:

Somewhat cooler weather has prevailed for the last week, but it still continues quite favorable for field work. The winter wheat in the Rotations and the varieties was seeded the first of the week. Plowing and listing of the Rotation plats was also completed. All of the corn from the Rotations has been hauled and weighed and also most of the varieties. Slightly over one-half of the Rotation corn has been husked. The corn so far husked has averaged about 24.5 bushels per acre, 20.9 bushels being good marketable corn.

Maximum temperature 75, minimum 26; precipitation, Trace.

TUCUMCARI:

Practically the entire week has been spent in threshing. With the minimum temperature from 47 to 42 the past few nights, frost seems threatening. A killing frost now will prevent late date kafirs and Sumac from ripening, while it will also injure rowed increase Sumac. Practically all other crops are harvested.

Maximum temperature 35, minimum 42; precipitation .15 inch. Average wind velocity 4.6 miles per hour.

WOODWARD:

During the past week most of the days have been fairly warm and the nights rather cool with a light frost and a minimum temperature of 33 on the morning of the 9th. This frost did no damage excepting in low spots where tender plants such as watermelon vines, cowpeas, etc., were badly frosted.

On the 13th the wind velocity averaged 11.3 m.p.h. for the entire 24 hours and during the day we had a regular March wind.

Although the soil is getting rather dry on the surface, wheat and rye are making fairly good growth.

The rest of the varieties in the cowpea hay variety tests were harvested during the week, also some Early Red cowpeas in a low spot where they were frosted. Broomcorn, which was grown for seed, has been pulled and the seed threshed.

Maximum temperature 30, minimum 33; precipitation .02 inch. Average wind velocity 5.9 miles per hour.

NOTE:

Issuance of the "Weekly Station Reports" of this office will terminate this season with the week ending October 28. No further reports need be submitted by field men for weeks subsequent to October 28.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 21 1922

REPORT FOR WEEK ENDING OCTOBER 21, 1922.
(Unless otherwise indicated.)

AKRON: Week ending October 7.

Still more attention was devoted to remodeling the fence around the north pasture. Increase potato field was harvested. Crop was very light and of poor quality. Harvesting of corn varieties and of ear to row experiments is in progress.

Maximum temperature 90, minimum 41; precipitation, trace.

AKRON: Week ending October 14.

No relief from the drought as yet. No wheat on the station has emerged to stands and trips must be made for several miles beyond the station confines to find wheat that has emerged. One of the sheep rotation fields was top dressed with manure during the week to aid in preventing blowing. The other field will be top dressed at the first opportunity. Threshing of those crops in the forage experiment from which grain yields are desired was completed during the week. Work was started on husking of the rotation corn plats. First unquestioned frost occurred on the night of the 8th when the temperature went down to 26.

Maximum temperature 74, minimum 26; precipitation .05 inch, as one-half inch of snow.

AKRON:

Husking of the rotation corn plats was completed during the week. Yields obtained are about the same as last year. Spacing experiment with corn was also husked. Sheep were taken off the pasture today and put into the breeding pen.

Maximum temperature 74, minimum 18; precipitation, trace.

BIG SPRINGS:

The long dry spell, which started the last of June, was broken this week, with slow drizzly rains falling intermittently for the past five days. Although only a total of .71 inch of rain fell, it soaked up the surface six inches of soil pretty well. This will give us a chance to work down the seed bed for winter wheat. Before this it was impossible to work down the big clods which had been thrown out by the lister and plow.

Threshing of sorghums was started last week and good progress was being made with the work until the rain. This week nothing has been done in that line, but if nothing happens the machine will be started again Monday. Sixty plats of Hilo were threshed, which made an average of 24.5 bushels per acre. This average is pretty good when one takes into consideration the fact that the crop was made without any rain after the latter part of June.

With the exception of the two late dates of planting, all of the cotton has been picked. The plats on the Dry Land Project averaged 575 pounds or somewhat over a third of a bale to the acre.

Maximum temperature 81, minimum 37; precipitation .71 inch.

DALHART:

This section of the Panhandle still remains dry. There is a decided change in the atmosphere but, aside from this, conditions remain about the same. It is considerably colder here than at last report although there has been no killing frost. The thermometer registered 33 degrees one night and some of the more tender plants and shrubs were nipped but not sufficiently to kill them. It is reported that some ice was formed in Dalhart.

All harvesting of experimental crops is finished here. The climatic conditions are such that the juice of the stalks is slow in drying out. This will delay threshing a little. The earliest harvest will not do to thresh before another week and possibly not that soon. The threshing will not take very long after everything is ready.

Everything is now in readiness for the painters and they expect to arrive Monday to begin work.

No winter rye has been seeded to date although the plats are all prepared for planting. Soil moisture conditions are such that it is poor policy to plant at this time.

DICKINSON:

Corn was husked and weighed during the week. The average yield of all Rotations was 25.3 bushels grain and 3198 pounds stover or 4968 pounds fodder. Grain yields ranged from 36.9 to 13.6 bushels. The continuous corn plats were again above the average yield making 31.4 and 32.7 on spring and fall plowing and 32.1 on fallow. This is the best corn crop harvested on the Rotations with the exception of the crop of 1909.

The excellent weather during October has allowed most of the threshing in the county to be completed. Local elevators are all full and are able to secure cars less than one-fourth as fast as needed to take care of the grain which would be delivered. Wheat has ranged in price from 92 to 94 cents during the month. Owing to the long threshing period and the dry condition of the soil there has been practically no fall plowing done.

The first killing frost occurred on October 7 almost a month later than the average date. The last killing frost in the spring was on April 30, making a growing season of 160 days or about six weeks longer than usual.

Maximum temperature 30, minimum 13; precipitation .16 inch.

GARDEN CITY:

The weather has continued dry and windy throughout the week. All rotation winter wheat was seeded last Monday in a dusty seedbed. It is doubtful if any of it will germinate before some precipitation is received. Some damage to seeded wheat by false wire worm has been reported in the county, but no such damage has shown up on the station as yet. It is reported that in some fields the pest has eaten practically every kernel that was planted.

Maximum temperature 77, minimum 25; precipitation 0.

HAYS:

Conditions unchanged. Outside work consisted principally in razing an old building and making preparations for the construction of a larger and more serviceable building to be used as seed house and implement shelter.

Maximum temperature 79, minimum 17; precipitation 0.

HUNTLEY:

The weather of the past week has, for the most part, been clear and warm with practically no wind. This condition has been ideal for hauling corn fodder and all the corn from the dry-land fields has been hauled in and the total weight taken. Husking has started and the yields secured so far have been somewhat higher than anticipated.

Fall plowing was completed on the 18th. The ground has been very dry and cloddy so discing of the plowed ground will not be attempted until after a rain or snowstorm has softened the lumps.

Winter wheat on the rotations is beginning to come up in spots but as yet no plat has a uniform stand. This condition obtains on all winter wheat fields in this locality.

Maximum temperature 76, minimum 19; precipitation .19 inch.

LAWTON:

Dry weather has continued throughout the fall and conditions for seeding wheat are adverse. The acreage has necessarily been largely reduced, although some delayed seeding will continue should rain fall within the next three weeks. Germination of early seeded wheat has been poor in most cases and in many cases the young seedlings have died.

But little cotton remains to be picked throughout the southwestern part of the state. Dry weather has made it possible to bring the crop to market in very good shape and the price is fairly good. The yield throughout this part of the state will be very low.

Cotton picking on the station was completed some time ago and the stalks have been cut and burned. Cutting off the cotton stalks and burning them is not an ordinary practice in this state but it is being done on the station this year to prevent the hibernation of injurious insects.

All of the sorghum crops have been threshed and such work as is related to the 1922 crops is pretty well completed. Ginning of cotton and cleaning of the sorghum seeds remains to be done yet.

With the exception of one wind storm from the north the weather has been mild. Only once has the temperature dropped as low as 36. Precipitation for September was 1.55 inches below normal. October, to date, is without rain of any consequence.

MANDAN:

Agronomy

The past week has been fairly moderate for this time of year. A snow-fall of about an inch occurred on the night of the 15th. It was all melted in a couple of days. No field work was done during the week.

Maximum temperature 68, minimum 18; precipitation .20 inch.

Cooperative Grazing Experiment.

The grazing experiment closed for the season on the 18th, at the end of 150 days. The gains of the cattle were the highest that have been obtained since the experiment started. This was not because of a better season for grass, but may be in part because the cattle were the thinnest at the start of the season, of any bunch of cattle to date, and also the season was uniformly favorable. The cattle made light gains during October. Each pasture carried ten head of two-year old steers, except the rotation pasture which carried sixteen. The following gains per head were made during the season in the various pastures:

Pasture (acres)	100	70	50	30	Rot. (70)
Gain, lbs. per head	339	341.5	310	186.5	310.6
No days on pasture	150	150	150	120*	150

The 50-acre steers lost 12.5 pounds per head during October as they were short of feed. The 30-acre steers gained 66.5 pounds per head during the 30 days in the reserve pasture. The rotation steers made the highest gain per acre during the season.

Dr. R. L. Webster, State Entomologist at the North Dakota Agricultural College, has been with us the latter half of the week, superintending the fumigation of the trees which are being dug for shipment to Shelterbelt cooperators next spring.

Arboriculture.

Pulling, fumigating and heeling in nursery stock has been in progress all the week. 42000 Ash and part of the Northwest poplar are now heeled in for the winter.

NORTH PLATTE:

Dry weather continues. No precipitation has so far been recorded for October. First freezing temperature occurred on October 8. Minimum temperatures have been below freezing nearly every night since that date. 13 degrees was reached on the 17th.

D. L. A. corn was husked with a shredder husker during the week. The average yield of the 80 plats was 31.1 bushels per acre. The maximum yield was 58.1 bushels per acre from Rotation 28, and the minimum yield was 19.4 bushels per acre from Rotation 43. The corn was very dry and shelled badly in husking. 70 pounds of ears were allowed for one bushel of corn.

TUCUMCARI:

Threshing has been completed with the exception of a few late dates and the M. C. Sumac, which has made very little growth the past month. A portion of the broadcast Sumac has been cut, while the increase rowed Sumac and about five acres of the broadcast are still standing.

Broomcorn growers of the county are now marketing their crop, prices ranging from \$180 to \$210 per ton for fair to good brush. Although the yield this season was light, averaging probably eight to ten acres to the ton, broomcorn was the best cash crop grown by local farmers. The broomcorn association of this county, organized by the county agent, has been sufficiently strong to force buyers to pay Lindsay prices, while in the past local farmers sold much below the Lindsay quotations.

Maximum temperature 74, minimum 36; precipitation .22 inch. Average wind Velocity 2.9 miles per hour.

WOODWARD:

During the past week the nights have been rather cool and the days fairly warm. We have not as yet had a killing frost.

Since the 15th of September we have had only .48 inch precipitation, falling in eight showers, consequently the wheat and rye are not but very little better condition than at this time last year. Two-thirds of the plants are still supported only by the temporary roots. Last year at this time practically no permanent roots had been formed.

Work during the week has consisted of a small amount of harvesting on the Cereal Project, one field of kafir cut for feed after heading by hand, and a shed built for sheltering young stock on the Dairy Project.

Maximum temperature 75, minimum 35; precipitation .05 inch. Average wind Velocity 5.0 Miles per hour.

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OF THE OFFICE OF
DRY LAND AGRICULTURE INVESTIGATIONS
BUREAU OF PLANT INDUSTRY
U. S. DEPARTMENT OF AGRICULTURE

OCT 28 1922

REPORT FOR WEEK ENDING OCTOBER 28, 1922.

AKRON:

All corn husking was completed during the past week. Spreading of manure over the two sheep rotation winter wheat fields was also completed. The rye field of the sheep rotation 51 is being covered now. Practically all the trenching for the water and sewage disposal system has been completed.

Dry weather continues. October has netted but .05 inch thus far following .06 inch for the whole of September. No fields of winter wheat within close proximity to the station have emerged to stands.

Maximum temperature 84, minimum 26; precipitation, None.

BIG SPRINGS:

The damp, cold, cloudy weather of last week was replaced by almost ideal conditions during the past week. The plats were dried off sufficiently by the middle of the week so that threshing was resumed after ten days delay. All plats, except the July 1 date of planting, have now been threshed. Although no startling yields were obtained, most of the plats yielded fairly well for such a dry summer. In the variety tests with grain sorghums Dwarf Milo made the best yield with 32.1 bushels per acre, while Bishops kafir was second with 28.3 bushels.

Maximum temperature 86, minimum 39; precipitation .17 inch.

COLBY:

Weather conditions remain dry and rather warm for this time of the year. no moisture of consequence has fallen since the first week of August. We have had some rather windy days the past two weeks.

Threshing of milo plats was completed on the 27th, and feterita and kafir plats were completed on the 28th. While we have not calculated the yields of milo on all of the plats we estimate that the yields will run 7 to 43.6 bushels per acre. Yields of milo on summer fallow were all uniformly good. While the yields on fall plowing ran quite low. Listed plats will just about average half of the yields of the summer fallowed plats. Feterita yields are very much better than last year. While kafir yields are good on summer fallowed ground, like milo, they are quite low on fall plowed ground. Yields of Sunrise kafir in the variety tests of sorghums will outyield those of the other kafirs. Feterita will give us the largest yields of any of our grain sorghums in the variety tests this year. Feterita was not hurt by the August and September droughts as were the other sorghums.

The soil is very dry. The 501-507 plats were listed the first of the week and it was almost impossible to keep the lister in the ground. In fact, in order to do a good job of listing it was necessary to run the lister three times in the row for each furrow.

Winter wheat is not up except on a few of the summer fallow plats. There is not enough up on any plat to notice without first stopping to examine the rows. Most of the wheat is laying in the soil in the same condition in which it was planted. All ground plowed since the first of August is cloddy and loose. We have examined a great many of the plats for false wire worm and to date have been unable to locate any. All bindweed areas have been listed for the winter to prevent any possible soil blowing. We have not harvested any of the corn plats so have no comparative yields to give on them.

GARDEN CITY:

Weather conditions have remained the same throughout the past week. High wind velocity combined with high temperatures during the day have continued to dry out everything.

Most of the time this week has been spent doing odd jobs and working up soil data in the office. Threshing will probably be started the latter part of next week.

Maximum temperature 92, minimum 26; precipitation 0.

HAYS:

Breezy, continued drought, and exceptionally warm for this time of the year.

Work during the week on the project consisted in spreading straw and manure on the winter wheat fertilizer experimental plats, and construction work; on commercial fields, threshing of sorghums.

HUNTLEY:

Corn husking was completed on the rotations today and there remain only the variety and miscellaneous plats which should be finished in two more days. The maximum yield secured in the rotations was 40 bushels to the acre on rotation 118. The average for all plats will be in the neighborhood of 25 bushels per acre.

Aside from a light shower early in the week the weather has been clear and ideal for field work. The continued lack of moisture will have a tendency to reduce the acreage of winter wheat this fall as many farmers who have been delaying their seeding until after a rain have decided to plant spring wheat in place of winter wheat rather than take a chance on planting in a dry seed-bed so late in the fall.

Maximum temperature 79, minimum 29; precipitation .11 inch.

LAWTON:

Mild temperatures, lack of precipitation, and low wind velocity, factors which have characterized the fall weather of this region, continue without much prospects of a change.

All wheat rotation plats, one plat of winter barley, and one plat of winter rye were seeded on the 25th. The wheat variety test, which consists of four varieties of soft wheat and four varieties of hard wheat, were seeded on the same date. In all cases the seed lies in dry soil and germination will be delayed until rain falls.

Although the ground is very hard and dry, plowing is progressing on field C. This work is being done in order to eliminate the hibernation of insects in the stubble.

Fall plowing of the rotation plats will probably begin within the near future.

Temperatures during the past week have ranged from 36 to 88. The total precipitation from January 1 to date is 23.02 inches. Of this amount 13.48 inches were received during the months of April and May. The deficiency from January 1 to date amounts to 2.09 inches.

Senator J. W. Harreld visited the station on the 28th.

SHERIDAN:

Threshing of cowpeas, soy beans, and cane was completed the first of the week. All of the cane in the varieties and Rotations was threshed. Husking of corn from the Rotations and varieties was completed during the week. There still remains to be hauled from the field, cane in bulk fields for feed and one block of Payne's White dent corn raised for seed. Excellent weather has prevailed throughout the fall for getting field work done.

The average yield of corn in the Rotations was 3440 pounds total fodder and 22.9 bushels of grain per acre. The highest yield of total fodder was 4600 pounds on Rotation 44, and of grain 31.1 bushels on Rotation 11-9. The lowest yield of both fodder and grain was on MCF, where the stand was very thin. The yield here was 1400 pounds total fodder and 10.9 bushels of grain. The corn was very dry when husked.

Of the dent corn in the varieties, Payne's White Dent gave the highest yield of grain, 21.9 bushels. Some of the later varieties, which rarely mature here, made higher yields of total fodder and also very good yields of grain. Dakota White Flint made the highest yield of grain of any of the varieties, 24.3 bushels per acre, and also made the highest yield of total fodder with the exception of the Rainbow flint, which made a yield of 4670 pounds. All of the corn was badly damaged by hail during July, the leaves being badly stripped from the varieties at that time.

The average yield of cane from the Rotations was 4800 pounds. The highest yield was 5100 pounds from Rotation 58, and the lowest 4550 pounds from Rotations 47 and 48.

Maximum temperature 79, minimum 33; precipitation .21 inch.

MANDAN:

Agronomy.

The past week has been warm for this time of year.

Maximum 77. Minimum 27. Precipitation, None.

No precipitation of any value has occurred since early in September, and it is now very dry. No field work has been done during the week.

Cooperative Grazing Experiment.

The cattle used in the grazing experiment the past season were shipped to the Agricultural College today, after waiting one week for cars.

Arboriculture.

Fumigation and Healing in of shelterbelt nursery stock, with the exception of evergreens, will be completed today. The following quantities of the several species have been obtained:

Mandan, continued:

Green ash	41,170	
Northwest poplar	32,440	
Boxelder	21,725	
Russian Olive	17,350	
Chokecherry	2,825	
Charagana	20,000	(Estimate) *
Chinese elm	500	"
American elm	500	"

137,010

* Final count not completed.

Fall work yet to be done consists of lifting evergreen stock, making poplar cuttings, and gathering seed of Green ash and Boxelder.

Horticulture.

Fall work is now nearing completion. The acre-garden has been cleaned up, manured and plowed, and land is being plowed for next year's nursery. Raspberries and this year's buds have been covered and fall digging has been completed in the nursery and seed beds. Fall planting of plums, sandcherries and Pyrus baccata, will be finished today.

About 1000 plums, and 300 apples, were dug and fumigated, and will be ready to send out to cooperators next spring. All this material is one year old, from the time of budding, and for the most part the trees have made good growth. Most of the plums are on sandcherry roots, while all of the apples and crabs are on Pyrus baccata roots.

The ground is very dry now, and if no rain falls before the freezeup, winter killing may be more severe than usual. A good rain fell before freezing last year, which may have been partly responsible for the trees suffering but very little winter injury.

WOODWARD:

Most of the week has been warm for this time of year, with a maximum temperature of 80, and with no precipitation.

Wheat on the station is making very little growth, and some of the wheat around the county is reported to be dying. A good deal of the late sown wheat is not up yet. The grasshoppers are doing quite a bit of damage to some fields, but no damage has been noticed on the station.

Work on the station during the week consisted principally of finishing the young stock shed on the Dairy Project, and hauling in and heading the kafir from the D.L.A. plats. Twenty plats of this have been threshed and while none of it has been weighed as yet, most of the yields will run from 10 to 15 bushels per acre.

U. S. Senator Harreld, of this State, was a visitor at the Station on Wednesday, the 25th.

Maximum temperature for the week 89, minimum 37; precipitation 0. Average wind velocity 8.3 miles per hour.





