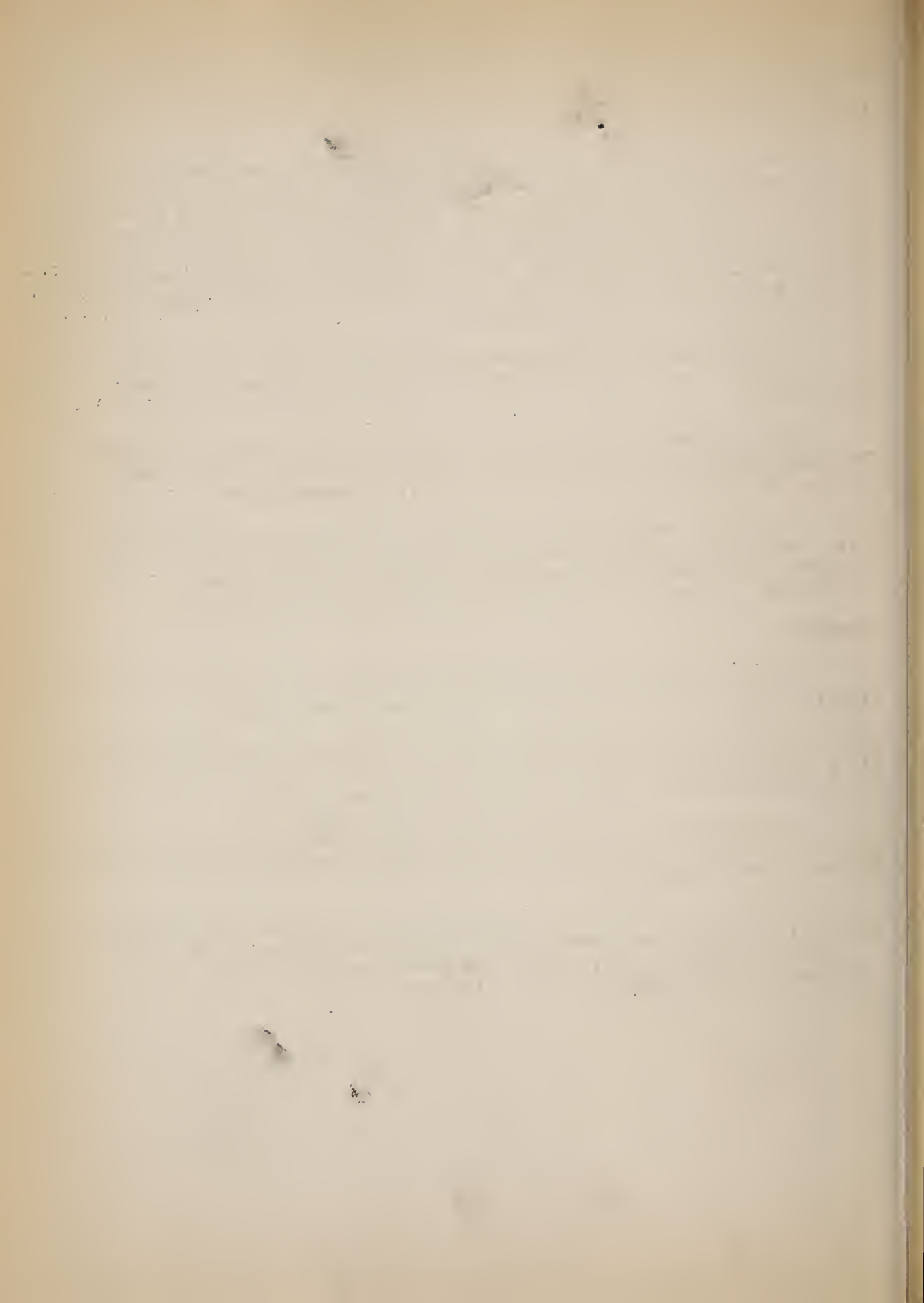


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**WEEKLY STATION REPORTS**  
**OF THE OFFICE OF**  
**DRY LAND AGRICULTURE INVESTIGATIONS**

**BUREAU OF PLANT INDUSTRY**  
**U. S. DEPARTMENT OF AGRICULTURE**

MAY 9 1943



REPORT FOR WEEK ENDING MAY 3, 1924.

HAVRE:

The past week has been quite favorable for crops. .41 inch of rain have been recorded, the most falling in a slow rain on the 27th.

The warmest weather of the season has followed this rain with the result that weeds have made a good start. All small grains, sweet clover, and peas on the rotations were seeded beginning May 1. Other seeding, including varieties and blocks in rotations, is progressing as rapidly as possible. Grass is making good growth and some trees are showing leaf.

Maximum temperature 79, minimum 32; precipitation .41 inch.

JUDITH BASIN:

The fore part of the week was cool and stormy, but the last few days have been unusually warm and favorable to crop growth. Pasture grasses, winter wheat, and rye have made a good growth, and the trees are beginning to leaf out.

Field work was delayed by several light snows, but was resumed again April 30. All rotation plats have been prepared and staked for seeding. With the exception of corn and flax, seeding on the Cereal project has been completed.

Maximum temperature 74, minimum 30; precipitation .03 inch.

SHERIDAN:

The past week has been quite favorable for field work. A light shower on the evening of April 28 prevented field work the next day, except plowing. Preparation of the Rotation plats for seeding was completed, and all of the early seeding on the Rotations has been done. The varieties of peas were seeded today.

The November seeding of winter wheat emerged the first of the week. All of the fall seeded grain and alfalfa, sweet clover, and the grasses are making a good growth. Weeds also are starting very thick, and making a fast growth.

Maximum temperature 72, minimum 25; precipitation .25 inch.

HUNTLEY:

While the fore part of the week was cold and cloudy, the last few days have been warm and crops have responded with a marked increase in growth. Spring sown small grains are for the most part well sprouted and about ready to come through the ground.



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Huntley, continued:

Preparation of the land for corn and late sown crops has been completed and roads in the rotation field have been disked to kill weeds and volunteer grain.

Maximum temperature 79, minimum 27; precipitation .24 inch.

MANDAN:

#### Agronomy.

The past week has been fairly favorable for field work, except early in the week, when the ground was too wet.

The snow of last week has nearly all gone, except in a few coulees. Some plowing was done during the week for forage crops and bulk plantings of corn.

Alfalfa and flax were seeded in the Forage crop rotations on May 1. Winter wheat appears to be in better condition in stubble than it was last year. Some winter wheat also came through on fallow which was worked with the duck-foot cultivator just before seeding.

Alfalfa is making a good start and there appears to be no winter killing. Alfalfa that was seeded alone last year on breaking produced a good stand, but no stand was obtained where seeded with flax on breaking.

Brome-grass and crested wheat grass, are making rapid growth, and would have made good pasture by May 1.

The native vegetation is making fair growth and the prairie appears green in spots. It, however, is not ready for pasture to date.

About three acres have been broken in Field P, and ten acres of oats have been seeded for feed.

Wheat which was planted two weeks ago is practically all up today.  
Maximum temperature 60, minimum 29; precipitation 0.

#### Horticulture.

Spring planting of fruit trees and nursery stock is now almost over. Trees were potted in tubs for breeding work. Pruning has been completed.

The early planting of vegetables in the acre garden was made on April 22. They are now beginning to come up.

Transplanting tomatoes in the hotbeds has been completed. The grounds are now being raked.





Mandan, continued:

Arboriculture.

Planting of cuttings in the shelterbelt nurseries has been completed, and ten rows of northwest poplar have been reset in the cutting block. The cultivation of the station hedges, shelterbelts and experimental tree blocks is being done.

BELLE FOURCHE:

The weather remained cold and threatening for most of the week, but warmed up considerably the last few days. No large amount of precipitation occurred, but there was enough to stop field work on two days.

Plowing for corn was completed the last of the week. The soil was very wet on most plats and worked down poorly. It will not be possible to form a good seed bed until the soil has been mellowed by rains.

Alfalfa and sweet clover have started growth. The sweet clover shows about 20 per cent winter killing, the alfalfa shows none. Winter grains are developing well and practically cover the ground now. The spring grains have sprouted and a few plants have emerged.

The precipitation for April was .81 inch, which is .73 inch below the average. The precipitation for the year to date is 2.47 inches, while the average for this period is 3.09 inches.

Maximum temperature 73, minimum 27; precipitation .26 inch.

ARCHER:

During the fore part of the week the humidity was high but the warm spring weather of the last three days has caused a lowering of this feature. The minimum temperature, 16 degrees, occurred April 27 and the maximum, 64 degrees, occurred May 2. Precipitation occurred April 23 and 29 with measurements of a trace and .02 inch, respectively.

Most of the tillage operations have been accomplished and conditions are ready for seeding. These operations have been delayed due to unfavorable labor conditions in the dairy. At present more than 60 gallons of milk are sent to market.

Prairie grasses are making rapid growth. Some of the ranchers have turned their stock into the pastures. Others will do the same in the very near future.

During the bad weather a number of trees were planted including 20 different species received from the Office of Foreign Seed and Plant Introduction. The original source of the greater number of these was Northern China and Siberia. Aside from ornamental shrubs and trees there were a number of plums, pears and apples. It is hoped that favorable results will be secured.



AKRON:

Field 2 of Sheep Rotation 28 was plowed for corn early in the week. One team and plow has been busy all week. Plats A, B, and C, of Rotation 41 were reseeded to brome grass early in the week. Perennial forage plats were seeded Tuesday and Wednesday. 500 seedling yellow pine trees were received Thursday and a goodly portion of the station force has been busy since getting these into the ground. One row one-half mile long is being planted on the north side of Experiment 2, which places the row on the north side of the station between the present Experiment 2 and the road.

All the spring sown grains have emerged and it now appears that satisfactory stands have been obtained in every case. Winter wheat is making slow progress. Winter rye is showing the need of moisture. Despite ample winter rains the ground is now dry especially in the wheat fields where the soil is badly baked and cracked, there being great need of rain sufficient to break up the crust. It has not yet been determined whether the cold weather of last week injured the fruit. Warm weather of the past few days has caused blossom buds to swell greatly. A few days continuance and the plums will be in bloom. Weeds are starting innumerable on the rotation plats.

Maximum temperature 66, minimum 21; precipitation .02 inch.

NORTH PLATTE:

The weather continues dry but considerably warmer than the weeks preceding. The total April precipitation was only .20 inch, which is 1.95 inches below normal. The deficit for the year to date is 1.45 inches. The excess for March gave the spring grain a good start so that no great damage has been done by the April deficit.

All ground is prepared for corn and planting will be done the coming week.

COLBY:

The week just ending has continued dry but not especially warm. The precipitation for April was 0.43 inch which was approximately 1.75 inches below a 37-year average. The upper surface of the soil, except that spring worked, has a very pronounced crust which extends down several inches. The subsoil has ample moisture at the present time. A few of the shallow rooted annual weeds are showing some signs of drying up.

Winter wheat continues to look fine. It is growing nicely and has a good color. The Hessian Fly may not do much damage as the dry weather and the cool nights seem to be killing the eggs. Not a very extensive count today shows that at least two-thirds of the fly has emerged from the flax-seed stage.

Spring grains are growing some. There is a good stand on the spring grains, except on the shallow spring plowed plats. Spring wheat looks especially good.



Work during the week has consisted of general clean up work of odds and ends of work. Some field work was done in getting land prepared for corn planting. No corn planting has been done on the station. It will probably be the latter part of next week before the plats will be seeded.

Visitors during the week have included Director F. D. Farrell, of the Kansas Experiment Station, Professor Albert Dickens, Horticulturist of the Kansas Station, E. C. Paxton, Crop Statistician for Kansas, and L. E. Willoughby, Extension Crop Specialist for the Kansas State Agricultural College.

#### HAYS:

Generally the weather during the week has been clear, warm and breezy. The ground has been drying out rapidly.

Due to the dry weather the small spring grains have not advanced much during the week. Winter wheat has continued to make good growth, it being very thick and the average height is about 12 inches except for the continuously stubbled-in plat, which has not been plowed since 1912. The wheat on this plat is of a light green color and only about four inches high. Winter rye is about two feet high and now heading. The rye and winter wheat has been wilting more or less during the heat of the day for the last two or three days. It is believed some dry weather to check its rank growth would be beneficial. However, a good rain would be very beneficial to the spring grains and would aid in making a better seed bed of the spring plowed ground for the row crops.

The early seeding of brome-grass failed to produce sufficient stand to justify leaving. The ground was cultivated to destroy the weeds and fox tail which were very thick, and the brome-grass was sown April 30. Alfalfa was also sown the same date.

During the week soil moisture determinations were made on the M. C. series of corn and kafir plats. All plats spring plowed for row crops were harrowed and the fall plowed and fallowed plats were cultivated. Considerable time was spent cultivating alleys and mowing borders and roads.

Maximum temperature 78, minimum 34; precipitation .38 inch.

#### GARDEN CITY:

Growing conditions have been only fairly favorable during the past week. The temperatures were rather low until Friday. Cloudy weather, with occasional showers, prevailed during the first half of the week.

Field work consisted of harrowing all spring and fall plowed plats and double disking the M. C. G. plats. The soil is in excellent condition at this time. All small grain plats were staked in preparation for trimming. All crops are making a satisfactory growth.

Maximum temperature 75, minimum 29, precipitation .73 inch.



DALHART:

There has been a little precipitation recorded during the past week. Nothing, however, to break any records but just enough to do the most good. These rains came in small showers, as follows: April 29, .26 inch, April 30, .13 inch, May 1, .12 inch, and May 2, .44 inch. These were all slow rains from which there was no run-off. The temperatures during the week have ranged about the same as the preceding week.

Beginning Monday, April 28, the first date of planting plats were prepared for planting. The planting was delayed until May 3, however, on account of rains. The plats were in fine shape for planting after having had these rains before planting was made. During the rainy days it was necessary to confine the labor to odd jobs such came to hand. During a part of this time it was possible that outside work could be done. When too wet for outside work the time was devoted to shearing the horses and mules. All the work stock and the driving mare were sheared. This job certainly helps the looks of the stock besides relieving them of their winter coats. It was very evident that the stock appreciated this assistance, after the ordeal was over. It was some ticklish job. When it comes to tickling the heels of four mules and getting away with it, it is a feat accomplished. The work was performed by careful handling of the stock, without causing undue nervousness, and was done with a power shear which was picked up at a bargain during the winter.

The small grains are making good headway. The ranges have greened up and made sufficient progress that stock are getting plenty of grass to eat. The cattlemen report the ranges and cattle in fine condition.

The cotton bug is getting loose again now. This whole panhandle country will see a great acreage planted this year. Gins have sprung up all over and are still springing up. It is now the talk of allowing a colony of negroes to come into this section for settlement as it is stated that cotton cannot be successfully grown without this labor. Heretofore, the Dalhart country has had no negroes. The negro delegation is due in Dalhart to interview the business men in a few days. This delegation represents a considerable sized colony. It is the present plans to locate them on the James ranch land north of Dalhart.

Maximum temperature 80, minimum 30; precipitation .96 inch.

TUCUMCARI:

Cloudy weather has predominated the past week, with light showers over the county. Wind velocity has been unusually low for this time of year. Field work has progressed rapidly and many farmers are beginning planting, although the soil is still too cold to induce rapid germination.





Tucumcari, continued:

The M. C. G. plats and much of the increase crop land have been double-disked the past week, while plowing of the south field has continued. The first date planting, with nine varieties, was made May 1. With weather conditions favorable, the majority of the dry land and cooperative plats will be planted May 15 to 20.

Light frosts the mornings of April 26 and 27 apparently did no further damage to fruit. Practically all peaches were killed by temperatures of 28 degrees the middle of April and the peach trees are now being pruned severely. Some apples, cherries, and plums were injured by the April frost, but a fair crop of fruit still remains on most trees.

Maximum temperature 79, minimum 30; precipitation .22 inch.  
Evaporation 1.066 inches. Wind velocity, 4.7 miles per hour.

BIG SPRING:

The weather this week has been cool most of the time, in fact too cold for cotton planting. The showers of last week soaked things up enough so that many planters were started this week regardless of the temperature.

The April 15 date of seeding of cotton and the sorghums has just started to emerge since the rains; cotton of that date had to be scratched, but now is coming up to a good stand. The May 1 date of seeding was planted on time and should come up within a few days. An ideal seed bed was obtained and the weather has been favorable since that date.

Other work has consisted of disking the increase fields, chopping up stover, and in getting the planters ready to go.

Maximum temperature 79, minimum 40; precipitation .11 inch.

LAWTON:

The weather, the past week, has been excellent for the growth of small grains and alfalfa. For the germination of sorghums and cotton recently planted it has been too cool.

On the 29th the worst sand storm of the season occurred. From 1.00 p.m. to 5.30 p.m. the wind velocity averaged 23 miles per hour. The maximum velocity was recorded between 2.00 p.m. and 3.00 p.m. when the velocity averaged 30 miles per hour.

Corn and vegetables were badly whipped by the wind and sharp sand. Plums and apricot trees were stripped of their fruit. Considerable progress was made in the fields during the week although the work was somewhat hindered by threatening weather. The second date of cotton and sorghum plantings was made May 1. The broom corn variety test was planted April 24. The M. C. broom corn plats and the M. C. cane plats were planted May 1.



Lawton, continued:

A few kafir plats in the rotations were planted May 2. Planting of all sorghum and cotton crops will be handled as rapidly as possible the coming week if the weather permits. Precipitation amounting to .53 inch fell on three dates during the week.

Mr. J. R. Horton, of the Entomology Laboratory, at Wichita, Kansas, visited the station briefly.

Maximum temperature 75, minimum 41.

WOODWARD:

Wheat and rye are growing rapidly, the rye beginning to head. Corn, which was planted on the 16th of April, is up to a good stand. About 40 grapes have been grafted to different varieties of viniferas.

Mr. Percy DePuy, of the Biological Survey, gave a demonstration on May 1 of pocket gopher poisoning at the station.

Some work has been done during the week grading roads and on the field we are terracing, also preparing fields for crops.

Maximum temperature 79, minimum 37. Average wind velocity 3.7 miles per hour. Precipitation 1.256 inches.

NOTE:

The attention of field men is again invited to the fact that when asking for quotations on informal proposals they should insert on face of each proposal form the sentence asking prospective bidder to indicate whether he will grant discount for prompt settlement of voucher after receipt of goods.





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**MAY 10 1924**



REPORT FOR WEEK ENDING MAY 10, 1924.

HAVRE:

Temperatures during the past week have been cool. Temperatures slightly below freezing were recorded on the 8th and 9th.

Native grass and rye made some growth during the week. Some of the early seeded wheat emerged. Fall seeded grasses and alfalfa also emerged with good stands. The trees are slow to show leaf.

Seeding of the varieties and forage crops was completed during the week and a part of the corn land is being prepared.

HUNTLEY:

Rains early in the week prevented field work until the afternoon of the 9th. Miscellaneous plantings of small grains were completed and old stands of alfalfa and brome-grass were spring-toothed, harrowed, and re-seeded. As the seedbed was very loose and fine the drill was followed by a corrugated roller to pack the soil.

Small grains planted two weeks ago have come up and the stands appear to be good on all plats. The young plants show the need of warm weather for their best development. Fall sown grains and perennial crops continue to make slow growth.

Maximum temperature 36, minimum 26; precipitation .97 inch.

SHERIDAN:

With the exception of the first two days, the week has been cold, cloudy, and with considerable wind. There was light precipitation in the form of snow which melted as it fell on the 5th, 6th, and 7th, and field work was interfered with during that time. The past five days have been the coldest for as late a period in the spring since this station has been running.

The varieties of small grain emerged the first of the week, but growth of all vegetation has been slow. Additional plantings of fruit trees were made during the week. The methods of seeding alfalfa, sweet clover, brome, and crested wheat grass, and the varieties of sweet clover were seeded. preparation of the land also has been in progress for some of the later seeding. Additional seedings of crested wheat grass also were made taking in the ravine running east and west through the station. This ravine is now seeded down to grass throughout its whole length. There is a good stand this year where seeded last year. All of the old shelterbelt, and the clumps about the buildings were cultivated during the week.

Maximum temperature 32, minimum 23; precipitation .21 inch.





DICKINSON:

The heaviest snow of the winter fell on May 6, amounting to 6.6 inches. This remained on the ground for two days and prevented tillage until noon on the 9th.

Corn plats on the rotations are being plowed and with fair weather planting will be done early in the week. During each of the past five years corn on the rotations has been planted on May 10.

Wheat, oats and barley planted April 17-19 are just emerging. All stands are good.

Alfalfa, sweet clover and grasses have made a good start considering the cool weather. Crested wheat grass has again made a better early growth than either brome or slender wheat grass.

The earliest trees and shrubs are not yet in full leaf. A few fruit and shade trees and a more extensive planting of ornamentals were planted May 1-4.

Maximum temperature 69, minimum 27; precipitation .66 inch.

MANDAN:

Horticulture.

Spring planting has been practically completed in the field. A new strawberry bed was started yesterday, and will be finished next week. The raspberries and last year's buds have been uncovered, and the straw mulch removed from the strawberries and seed beds.

Last year's buds have been cut down and a better stand than usual appears to have been obtained.

Top working in the Hibernial and Virginia crab orchard is in progress, more scions being placed in the same trees that were top-worked last year. The tops of these trees will be completely worked over in about one more year.

All potted trees in the greenhouse which did not set fruit are being removed to their summer quarters.

Potatoes were planted in the acre garden, and part of the corn in the corn breeding experiment has been planted.

Maximum temperature 63, minimum 31; precipitation .20 inch.

Arboriculture.

Boxelder and Tartarian maple seed are beginning to come through the ground. Ash and Russian olive are sprouting, and should be coming through shortly.



Mandan, continued:

#### Arboriculture.

Spring planting is now completed with the exception of lining out the evergreen seedlings which have not yet been received from the Cloquet Forest Experiment Station.

#### Agronomy.

The past week has been unusually cold for this time of the year, with continued cloudiness and intermittent light sleety rains.

Crops already in the ground, have made but little progress.

Notes on emergence of wheat, oats, and barley, were taken during the week. Marked differences between the emergence in the Main and South fields were noticed. Wheat on fallow in the South field, was as much as six days later than in the Main field.

Ten acres of oats were disked in on corn land in Field P this week. The work was done with a tractor, pulling a disk ahead of the drill.

#### Cooperative Grazing Experiment.

The steers for the grazing experiment were received and placed in the reserve pasture this week.

ARDMORE: Week ending May 3, 1924.

The week was characterized by high temperatures and exceptionally high winds for this time of the year. Soil moisture conditions are very unsatisfactory. The surface of the ground is dry and considerable damage has been done by soil blowing. A rainfall of .39 inch on the 30th gave temporary relief, but was of very little permanent benefit. The total precipitation for the month of April was .69 inch- the lightest in the history of this station for the month of April.

With the exception of flax the seeding of small grain has been completed at the station. During the week the seeding of a 40-acre field of Grimm alfalfa was finished. The season has been late, and farmers are much behind with their work. Many have not finished seeding of small grain. In the vicinity of Ardmore considerable native sod is being broken in preparation for crops. Much of this land will be seeded to alfalfa on the sod broken this spring.

Pasturing experiments with hogs was started today. Approximately 70 pigs and 10 sows were turned into a 5-acre alfalfa pasture. The alfalfa was about four inches high and is making a rapid growth.

Maximum temperature 32, minimum 23; precipitation .39 inch.



ARDMORE:

Exceptionally low temperatures and high winds have prevailed throughout the week. There has been no rainfall since April 30, and the surface of the ground is very dry. On May 6 the average wind velocity for an eight hour period was 26 miles per hour. On this date much damage was done by soil blowing. Oats, wheat and winter wheat plats had plants whipped out of the ground completely and the plants not blown out were badly damaged by being cut off near the surface of the ground. Teams were kept busy cultivating in an attempt to stop the blowing.

Native vegetation and alfalfa is suffering for the lack of moisture. The wheat grass hay crop is certain to be short as the season has passed when it can be reasonably expected that rain will be of benefit to this hay crop. Yields of alfalfa doubtless will be below the average. Ground is being prepared for corn planting next week.

Maximum temperature 70, minimum 27; precipitation 0.

ARCHER:

During the past ten days the weather has been cold, dry and windy. May 5 was warm with a maximum temperature of 77 degrees and on the morning of May 7 the minimum was 22 degrees. There has been no precipitation and the high winds which prevailed made field work very disagreeable.

However, all wheat, oats, barley and peas have been seeded both on the Dry-Land plats and varietal area. Sunflowers and corn have been seeded in the general field. These crops are to be used for silage, and a small field of Gehu was seeded in an increase area. On this date tillage operations are in progress on land to be seeded to corn and millet. All Kota wheat has been sold except 250 pounds and millet seed is in good demand.

The dairy is producing 80 gallons of market milk per day. The cows are in dry lot with the bulk of the feed consisting of sunflower silage, a light feed of millet hay once per day and a grain ration of 10 parts of corn chop, 2 cotton-seed meal and  $1\frac{1}{2}$  parts of oil meal. The grain ration is fed at the rate of 1 pound for 4 pounds of milk produced. This method of feeding has been followed since March 22. It took about ten days for the cows to become accustomed to the change from corn silage to sunflower silage after which there seemed to be no ill effects. The cows are in a very thrifty condition.

NORTH PLATTS:

Corn was planted on the D. L. A. plats the 5th, 6th and 7th.

The weather has been very unfavorable for field work, a high wind and low temperature, and it very disagreeable. The night of the 7th the temperature went down to 20 degrees above zero and considerable damage to fruit is reported. The rainfall for the week amounted to .01 of an inch.



North Platte, continued:

The second round of soil samples has been completed. There is still plenty of moisture in the upper three feet of soil but the heavy growth of winter wheat on summer tilled and early fall plowed plats is using it up very rapidly and will soon need a rain.

COLBY:

The weather has continued dry and windy; the first two days of the week were two of the warmest days of the year, while the remainder of the week has been quite cool. Several nights during the week the temperature has dropped to freezing and below. Last night the temperature was 23 degrees. The cool weather has been more of an asset than detriment as the lower temperatures have helped to keep down plant growth. Winter wheat continues to look fine, except on one corn stubble and late fall plowed plat. On these two preparations the wheat is a light yellowish green in color. Winter wheat on stubbled in wheat stubble is not as thick a stand nor as far advanced as that on other preparations. Winter wheat on shallow early fall plowed, early fall listed, and on pinto bean ground hardly covers the ground, yet it has a good color and vigorous appearance. Winter wheat on fallow has a luxuriant growth, is about 12 inches high, and, with higher temperatures than what we have had, would use up moisture fast.

No areas have been noted on any of the plats that appear to be drying out; this in spite of the fact that we have had only one-half an inch of rain, in several showers, in the past 40 days. The excess fall precipitation and the wet snows in March have furnished sufficient moisture to date.

Soil moisture sampling is continued weekly on MC-A, B, C, and D winter wheat, on continuous stubbled in winter wheat, on 574 A, B, and D. The latter three are winter wheat plats with winter wheat on early fall plowing, on winter wheat stubbled in on wheat land, and on winter wheat planted on corn ground, respectively. These different methods have sufficient moisture to carry them for some time yet.

Winter rye is jointing and has not stooled sufficiently to thicken up the stand very much.

Spring grains continue to grow slowly. There are good stands on the spring grains plats with the exception of MCA plats of spring wheat and oats.

Corn on the D. L. A. project was planted today. Some of the plats are, we believe, too dry to permit of good germination unless a light rain comes soon. The plats that are possibly too dry for germination are those which were in wheat stubble and not worked until just before planting.

Visitors during the week included the members of the State Board of Administration, A. E. Carney, R. M. Williams, and W. P. Lambertson, who, with the state Business Manager, T. J. O'Neil, and State Architect, Chester Routlege, visited the station Friday evening and this morning. The principal object of their visit was to take up the location and talk over plans for a new residence for the superintendent.





HAYS:

As shown below there was a wide variation in temperature during the week. Generally it was cool, part cloudy and breezy, at times windy. It was so cool it was necessary to keep light fires in the forenoons most of the week to keep the houses comfortable. Two nights the temperature dropped below freezing but it was cloudy and windy so there was no frost. Alfalfa is the only crop that showed signs of having been injured, and it was only the tips of the plants that were injured enough to cause them to wilt.

The ground is beginning to get pretty dry at the surface. The spring plowed ground is especially dry and in poor condition for planting of corn. Corn planting has been delayed a few days on account of the poor condition of the ground and the very cool weather. However, it will be planted the first of next week.

During the week considerable time has been spent in seed bed preparation for corn and sorghums on the plats and on the borders. Soil moisture determinations were made on a number of winter wheat plats.

Maximum temperature 37, minimum 29; precipitation .03 inch.

GARDEN CITY:

Cold cloudy weather accompanied with a north wind has prevailed during most of the past week. A temperature of 23 last night killed some of the more tender plants such as garden beans. All crops made a rather slow growth during the cold weather.

Winter wheat is stooling well and winter rye is beginning to joint.

Field work this week has consisted of trimming all small grain plats, disking roadways, and spring tothing the plats that were fallowed last year.

Maximum temperature 37, minimum 23; precipitation 0.

DALHART:

The past week has been quite cool as a whole. Several days have been cold and uncomfortable for field work. There was considerable cloudiness and threatening weather but little precipitation. This morning some precipitation was recorded but not enough to stop work.

This has been a very busy week at this station. All the men and teams were busy in the field during the entire week. The work has progressed nicely in spite of the uncomfortable weather. The men donned their overcoats and overshoes and went right ahead. Otherwise it would have been too cold for comfort in riding the farm implements. The preparation of the seedbed is complete for all rotations in the D. L. A. project except the late preparation plats in the C. C. methods.



Dalhart, continued:

The seedbed is ready for the second date of planting and for the cotton. Work is now in progress preparing the bed for planting of the increase plats. Everything is set for a good crop this year, weather conditions being reasonably favorable, barring hails, etc.

Winter rye is knee high and heading. The oats and barley are making good headway, jointing just a little at this time. Sweet clover is nearly knee high on the roadways and is looking fine. Clover in the pasture is coming in good shape considering the handicap. It will only be a matter of another year until it will get a good foothold and hold its own. A little test is now being made to ascertain if the blueweed can not be entirely eliminated by the growth of sweet clover. This will have to extend over more than one year in order to get results. If this proves to be of value there is a great acreage scattered over this section that can be redeemed by the culture of sweet clover.

Range conditions were never better over this section. Farming activities are ahead of the usual year. Many new farms have and are now springing into existence. This will be a real farming community within the next few years.

TUCUMCARI:

The past week has been characterized by cool weather and an increasing need of rain. Plowing and spring-tooth harrowing of the south field was completed; most of the increase field was double-disked, while the remainder was plowed for rate plats; all increase land of the north field was double-disked; and all 1923 fallow and cowpea plats in the north field were spring-tooth harrowed. Other work included cleaning of the silo, watering and rubbing sprouts from young shade trees, grading and dragging the road, and pulling fence posts between the sod field and center field.

Planting can be rushed as soon as advisable, for most fields require only very little work in preparation for planting. The cool weather and lack of moisture in the surface soil tend to discourage extensive planting, for it is doubtful whether good stands would be procured. Furrow openers will be used on the planter if no rain falls by the time the soil becomes warm. Although only 1.46 inches precipitation has been received since January 1, the ground below the first few inches is well moistened, due to the heavy rains of last fall.

May 1 date of planting plats to date show no seedlings, although a few seeds have germinated.

Maximum temperature 35, minimum 39; precipitation .04 inch.

Evaporation 1.722 inches. Average wind velocity 4.3 miles per hour.



BIG SPRING:

The weather this week has been exceptionally cool for this time of the year. The soil has remained so cold that the May 1 date of seeding of sorghums is just starting to emerge, while that date of seeding of cotton has hardly started to germinate.

The winter wheat is headed out, but does not promise much of a yield this year. The plants are now only about a foot high, and most of the plats have started to dry up.

The work this week has consisted mainly of disking and harrowing the dry land project in preparation for planting and in harrowing the increase fields. If the soil does not get too dry, most of the planting will be done next week.

Maximum temperature 36, minimum 44; precipitation .30 inch.

LAWTON:

Excellent growing weather obtained the first three days of the week. Since that time it has been unreasonably cold for this section. Since the 7th the maximum temperature has ranged from 59 to 71 and a minimum temperature of 40 has been recorded twice during the week.

Corn has grown slowly and has a sickly yellow color. Small grain crops and alfalfa are rank in growth and promising in yield with the exception of oats. The latter crop, however, is in position to make an excellent showing the latter part of this month.

Most of the alfalfa was cut on the 10th for the first time and the tonnage is very satisfactory for upland production.

Winter barley has been in full head for several days and an appreciable per cent of heads is visible in the hard wheat. Soft wheats are fairly well headed. Kan Red wheat was the first to head among the hard wheats.

All of the cooperative plantings of grain and forage sorghums were made on the 7th. All of the peas, sorghums, and cotton have been planted in the rotations. In the cooperative cotton experiments only the variety tests and plant selections remain to be planted. An excellent seed bed obtains in all of the work. The surface soil although moist and in good tilth is cold and germination since the first of May has been quite slow.



WOODWARD:

Most of the week has been very cool for this time of the year. We had a minimum temperature of 34 on the nights of the 9th and 10th. No frost was noticed on the station, but some was reported in town and from some of the low places around in the country.

Rye has been making rapid growth but the wheat is not coming on so fast.

Most of the work done during the week has consisted of spring-tooth harrowing the fall plowed plats, and plowing fields. A little kafir was sown for early feed.

Peaches which were left until danger from frost was over are being pruned at present.

Maximum temperature 36, minimum 34; precipitation 0. Evaporation 1.613 inches. Average wind velocity 3 miles per hour.







WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 17 1924



REPORT FOR WEEK ENDING MAY 17, 1924.

HAVRE:

This week has been generally warm and dry. The maximum for the season of 89 degrees was recorded on the 15th. A light rain fell during the night of the 16th.

Most all small grains emerged with good stands during the week. Corn land was plowed and planting is in progress. Alfalfa and rye have made rapid growth. Alfalfa in rows is almost a foot tall and rye is shooting.

Messers Stewart Lockwood and Robert Shotwell, of the Bureau of Entomology, were station visitors on the 16th and 17th. Mr. Shotwell will probably remain in this part of the state the most of the summer to study the grasshopper situation. During the past week grasshoppers have hatched but as yet they are not numerous on the station, although there are reports in certain localities in the Triangle that they are fully as numerous as they were last year. Mr. Lockwood reports that a fair percentage of eggs have not yet hatched.

Maximum temperature 89, minimum 32; precipitation .07 inch.

HUNTLEY:

Ideal growing weather has prevailed throughout the week and all crops have a healthier appearance than noted heretofore. All corn and sunflower plats were planted on the 13th. The seed bed secured for these crops was the best that has been prepared for several years.

The pasture plats were fenced and hogs turned into the winter rye, alfalfa, and brome grass fields. Sows and spring pigs will be used in the rotation pasture for the first time this season and fall pigs will be used on the perennial pastures as formerly.

Maximum temperature 86, minimum 27; precipitation .03 inch.

SHERIDAN:

The entire week has been fair until yesterday afternoon, when a light shower with considerable wind occurred. The first four days of the week, however, continued cool, but the last two days have been quite warm.

The Rotation plats for corn were plowed and prepared for seeding. The ground still remains rather wet for good plowing, and works up lumpy. The corn in the rotations is being seeded today. Preparation of ground for other plantings of corn is in progress.

The first round of soil samples was taken May 15. No dry soil was struck to a depth of 6 feet, and sampling was difficult because of the large amount of moisture on most plats.



Sheridan; continued:

All of the shelterbelt has now been cultivated once over this spring. The winter wheat alleys are now being lined out, the large amount of volunteer grain in these alleys making special lining necessary. Spring grain in the Rotations emerged with a good stand the first of the week, with the exception of a few of the spring-plowed plats where the soil was rather lumpy. The varieties of peas also have emerged.

There has been considerable wind and some soil blowing on the sandy land on the north side of the station.

Maximum temperature 79, minimum 27; precipitation .05 inch.

MANDAN:

#### Agronomy.

The past week has been fairly favorable for field work. The weather in general has been unseasonably cool. No rain fell during the week.

Land was prepared during the week for corn, and everything is ready for planting early next week. Ten acres have been plowed with the tractor for corn in Field P, and about 3.5 acres in the South Field.

The second seeding of wheat was made on May 15. This is an MC Series, which is given a second cultivation to kill weeds.

Sunflowers and corn were planted in the silage crop test early in the week, for the Office of Forage Crop Investigations. A sweet clover nursery was also planted for the same office.

Brome-grass and crested wheat-grass, continue to make a fair growth, with the wheat-grass considerably ahead of the brome.

Maximum temperature 79, minimum 29; precipitation 0.

#### Cooperative Grazing Experiment.

The native vegetation is somewhat backward for this season of the year, but has made a good start. The brome-grass pasture is covered with a good growth, and is much ahead of the native vegetation. The prairie now has an appearance of green.

The cattle are now on the reserve pasture. About ten more head remain to be delivered at the pasture. Branding will, no doubt, be done early next week, and the grazing season started by the 25th.



Mandan, continued:

#### Arboriculture.

Fifty-eight thousand seedlings of Spruce and Pine are expected next week from the Cloquet Forest Experiment station, for lining out in the shelterbelt nursery. In preparation for this planting, the fields have been irrigated. This practice last year gave excellent results.

#### Horticulture.

Cuttings of currant varieties were planted in beds in the early part of the week, and budded fruits uncovered and cut back. Top working of apple trees in the field has been started and is still in progress. Potato planting in the variety test is being completed today. The first planting of corn, beans and wrinkled peas, also vine crops and early potatoes, was made May 3-10, in the Acre garden. A good stand of early planted stuff has been secured, but the ground is now too dry for later planted stuff to germinate. Cutting of asparagus was commenced May 12. The plants came through the winter in good shape, and a good yield is expected this season.

Planting of sweet corn selections was begun and is still in progress. One hundred ear rows of third generation selections is to be hand pollinated the coming season.

Routine work in the greenhouse and with hotbeds has been carried on, and the spading of shrubbery groups and general grooming of the grounds is being continued.

PELIE FOURCHE: Week ending May 10, 1924.

With the exception of one day, the entire week was cold, windy and stormy. There was only one day, however, when there was enough precipitation to hinder field work. Snow fell all day on the 6th, and while the precipitation for that day was only .29 inch, it was enough to mellow the spring-plowed corn-land considerably and insure germination of grain not previously sprouted.

Barley came up on the 4th and wheat and oats on the 5th. Good stands were secured on all plats not spring plowed. The different spring plowed plats show stands of grain ranging from 15 to 60%. The cold weather since the 5th has kept crops at a standstill and the spring grains have made scarcely any growth at all since the day they broke through.

Winter grains show more development. Winter wheat and winter rye now cover the ground. On some plats the rye has started to form straw. The general condition of the winter grains is the best it has been in recent years.





Bellefourche, continued:

The maximum temperature for the week was 34 and the minimum 27. The minimum temperature occurred on the 6th. Fortunately the season is so backward that none of the fruit trees were in bloom so no damage to fruit was done, though the early leaves on some trees were killed. Precipitation occurred on five days during the week, the total amount being .36 inch.

BELLE FOURCHE:

Clear and moderately warm weather prevailed during most of the week. With the exception of two days the wind movement remained high. As a result spring plowed land has dried out considerably, and corn planted on spring plowed land will probably not germinate until after a rain.

The corn in the Dry Land rotations was planted on May 13. Fall plowed land was mellow and in good condition. Spring plowed land was in fair condition and on nearly all plats it was possible to reach moist soil with the planter. Since planting, however, the soil has dried out a great deal and the corn on spring plowing shows little promise of germination until the soil is wetted. Corn planted with a lister will probably germinate as quickly as that on fall plowed land.

The potatoes were planted on May 15. The soil was in excellent condition at time of planting.

Spring grains are developing very slowly. Winter grains are also making slow progress. Winter wheat is just commencing to form straw. Some of the winter rye is in the boot. Heading will, no doubt, be very uneven.

The roadways were disked during the week. Weeds are commencing to appear in the alleys and cultivation of these will be necessary soon.

Maximum temperature 79, minimum 29; precipitation .15 inch.

ARDMORE:

The weather continues unusually cold and dry with high winds. Freezing temperatures have occurred every night except one during the past week. There has been no precipitation since April 30.

Small grain crops have been badly damaged by high winds, and some of the plats are in such condition that they cannot be reasonably expected to produce a fair crop. Alfalfa is growing very slowly because of the dry weather and cold nights. The tips of all alfalfa plants have been frozen back badly. Native vegetation is making a very unsatisfactory growth.

Corn planting was finished at the station during the week with the exception of the silage varieties. In addition to the rotation plats about 80 acres were planted to this crop. Some of the small fields of Dakota Amber were planted.



Ardmore, continued:

A Field Day will be held at the station on Wednesday, May 21, to give farmers and ranchers an opportunity to see the beef cattle that have been used in the wintering experiments during the past six months. These cattle will be put on pasture on May 21. This experiment has attracted much attention. Word has been received that 25 cars will come from Edgemont, a distance of 30 miles, and altogether at least 300 are expected to attend the Field Day.

Maximum temperature 74, minimum 24; precipitation 0.

ARCHER:

Weather has continued cool and dry with low humidity and high evaporation. Thus far there has been no precipitation during the month. The maximum, 78 degrees, occurred May 16 and the minimum, 22 degrees, occurred May 14.

These conditions have not hindered farm work. All corn, except the varieties, has been seeded. This seeding along with the seeding of sunflower selections, soy beans, beans, millets, flax and potatoes remain to be accomplished.

The soil is drying badly and rain is needed not only for crops out also for the pastures.

May 11 the dairy cows were turned into the pasture. There was no other change in the feed, yet they fell off slightly in production. They still eat the sunflower silage in large quantities.

AKRON: Week ending May 10, 1924.

Outstanding characteristic of the week has been high daily northwest wind, and cold daily and nightly temperatures. Work has progressed favorably despite the disagreeable weather. Rotation corn plats were plowed and packed early in the week. Rate and spacing corn experiment ground plowing was completed this afternoon. Approximately ten acres of flax were seeded for the State Experiment Station on sod on the Forestry Quarter. Growing grains have made no progress during the week. In some instances blow spots about the station were given attention. The northeast portion of winter wheat field of Rotation 51 was damaged some by plowing but the menace was not considered bad enough to warrant cultivation. Seed and Plant Introduction stock which had been heeled in was planted during the week. Some transplanting of stock in the nursery was done. All the orchard plantings and the shrubbery plantings about the buildings were cultivated.

Professor George E. Morton and Mr. E. J. Maynard, of the State Agricultural College, visited the station early in the week in the interest of the Sheep Rotation Experiment. Mr. D. W. Robertson, Plant Breeder, and Mr. Leonard, student, from the State College, visited the station studying stand data in the nursery.



Akron, continued:

Maximum temperature for the week was 36 on the 6th. Thereafter the daily maximum lowered until 55 was reached on the 10th. Minimum temperature 25. Minimum below 32 on four of the past seven days. All plums, Ostheim cherry, and a few of the crab apple varieties have been in full bloom throughout the cold and severly windy weather.

AKRON:

Growing grains made no appreciable progress during the week but all seem to be holding their own well except winter rye, which at the jointing stage shows decided need for moisture. Winter wheat still appears to be in good condition, tillering well, and only the continuance of dry weather with the weeks to come promises severe damage. The sheep on rye field in Rotation 51 have the rye well under control, and unless moisture comes soon the rye may be exterminated. The orchard is in full bloom, the plums showing to most advantage and the cherries and apples and pears coming into bloom toward the last of the week. Plums and cherries and pears are blooming profusely but blossoms are rather scarce on the apple varieties. Some of the crab varieties might have been included with the profusely blooming list. Re-plants for the orchard were received Saturday and immediately set out. Some 150 pine 2-year seedlings were set out in wind break plantings about the building plot. Rotation, sheep rotation, and rate and spacing corn plats were seeded the last of the week. Examination shows that plums have been injured by the extremely cold weather the past two weeks but to what extent it is yet too early to determine since the cold weather has continued at intervals up to date. Minimum temperature of 24 was recorded on the 14th.

Mr. John Kelso, of the Ardmore Station, spent last week-end at the station.

Maximum temperature 74, minimum 24; precipitation 0.

NORTH PLATTE:

Dry conditions continue. Except for a few light showers no rain has occurred during the 54 day period from March 24 to date.

Corn ground has listed out fairly well but the furrows are drying out badly. Spring grains continue to develop well but the winter wheat condition has dropped considerably the past week. A few of the D. L. A. plats are already injured beyond recovery. Wheat on late fall plowing and on corn ground has been noticeably behind that on early plowing and fallow, all since spring. During the last few days some of the later plats are showing injury. The worst injury has occurred on 115-B, which carries the third crop of wheat after 10 years of continuous green manuring. On this plat the growth has been heavy and of a dark green color, but during the past week the plants have dried up almost as is exposed to fire.



COLBY:

Weather continues dry and cool. Since April 1, 47 days, .48 inch of precipitation has fallen. Winter wheat has started to show the effects of the continued dry weather. Wheat on early fall plowed is beginning to dry out in spots. The wheat on the late fall plowed plat is yellow and the bottom leaves are drying. Some of the fallow plats, notably 156 and 155, are beginning to show dry spots also. Spring grains continue to grow slowly and apparently no damage on account of dry weather is noticeable. There is a good stand and equal growth on the spring cereals with the exception of MCA oats and spring wheat, where the stand and growth is both deficient.

There was sufficient moisture in the soil to sprout the listed corn. The ground dries out very rapidly after it is stirred, so that it is doubtful if there will be much, if any, emergence of corn unless it rains. Corn planting is completed on the station with the exception of four isolated plats of selected corn. Dr. A. M. Brunson assisted in planting a corn nursery the first of the week.

Temperatures have ranged as low as 23 degrees the past week. The days are either quite calm or very windy.

No plowing for summer fallow has been done as yet. Plowing for summer fallow will be done the coming week. While weeds started early this spring the cool and dry weather has kept down weed growth.

There will be very little fruit this year due to the continued cold weather. Alfalfa is showing the effect of dry weather to a noticeable degree.

Hessian Fly damage is apparently going to be negligible. In making counts of Hessian Fly damage it was noted that the wheat straw worm is really doing more damage than the fly. Inasmuch as the character of the damage is very similar the Hessian Fly will undoubtedly get credit for some damage that it will not do. Less than ten per cent of the tillers were found to be infested at the present time with both the Hessian Fly and the wheat straw worm in the worst field that we have examined.

Visitors during the week included Dr. Brunson, in Charge of Corn Breeding work for this section of the Great Plains, and Mr. Robert Good, Assistant Business Manager for the State Board of Administration.

HAYS:

There was no rain during the week although storms approached within sight three times during the week. All day Friday the sky seemed full of dust, so the sun appeared as if looking at it through a smoked glass. Generally the weather was warm and dry.





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Hays, continued:

Crops are wilting considerable at this time. The winter wheat is from 15 to 18 inches high, and is wilting badly except on fallow ground and even there is wilting some. On most plats the heads are formed, but none will be out for several days yet. After delaying corn planting on account of the dry and poor condition of the surface soil, it was planted Tuesday, for the most part in dry soil. Sorghums were seeded Thursday and Friday.

Large cracks are opening in the ground where there is much vegetative growth.

Seed-bed preparation for corn and sorghums was finished, some fallow plats plowed and roadways mown during the week. Also soil samples were taken on a number of wheat plats.

Maximum temperature 33, minimum 32.

GARDEN CITY:

Low temperatures have prevailed again for the larger part of the week, however, the past two days have been quite warm. The temperature dropped to 28 on two nights of the past week. This temperature did practically no damage to field crops, but was sufficient to kill some of the more tender garden vegetables.

The small grains and alfalfa are making a good growth considering the low temperatures. Winter wheat is now about ten inches in height and rye is from two to four inches taller. Spring small grains are making a satisfactory growth.

The May 15 date of planting of sorghums was made as scheduled. All corn plats were planted on the 15th and 16th. The office building and the interior of the Dry-Land cottage are being given a coat of paint.

Superintendent F. A. Wagner left Thursday on a business trip to Topeka and Manhattan.

Maximum temperature 85, minimum 28; precipitation 0.

DAIHART:

The past week has been very favorable to crop growth and for all field operations. There have been several nice showers which assisted in the germination of the planted crops, yet were not sufficient to cause undue packing of the soil. These showers did not prevent field work to a very great extent. One day is as much as was lost from rains in the field. The temperature has been just about right for this time of year, not excessively hot, yet sufficiently warm to make things grow off well.



Dalhart, continued:

During the week the teams have been busy in the preparation of fields for planting. The second date of planting of grain and forage sorghums was put in on the proper date, May 15, without delay. The field corn on all the C. C. plats of the D. L. A. project and on all corn rotations was planted on the 10th. The first date of cotton, consisting of Oklahoma #44, Burnett's Improved and Acala cotton, was planted on May 15. The next regular date will be June 1, at which time the cotton varieties will be planted. May 1 date sorghums emerging on the 15th.

Maximum temperature 80, minimum 34. Precipitation 0.55 inch, as follows

May 11.....	.14	inch
May 12.....	.35	"
May 14.....	.05	"
May 15.....	.01	"

TUCUMCARI:

Precipitation of .09 inch the past week, falling in three showers, brought the total for the month to .13 inch, and the total for the year to date 1.55 inches. This is far less than usually is received in April or May along.

Although there is an abundance of moisture below the surface soil, the past few months have dried the soil sufficiently deep to make plowing almost impossible, surface planting inadvisable, and listing difficult. While the lister is being used now for planting increase sorghums, no attempt has been made to make surface plantings other than the date plats. To date very few of the May 1 planted seeds have emerged, while it is doubtful whether a stand will be procured on the May 15 plats until after a rain. Furrow openers were used, but it was impossible to get below dry soil in most cases.

Work the past week has consisted of disking and harrowing plats and increase fields to keep weed growth down, mowing lawns, harrowing and hoeing orchard, vineyard and tree rows, watering newly set trees, and getting work in condition generally so planting may be pushed when rain makes planting possible.

Since weather records have been kept, 1905, the only seasons which compared with 1924 to date were 1910 and 1913. The latter year planting was not done until nearly the middle of July, due to lack of moisture in the spring.

Maximum temperature 84, minimum 40; precipitation .09 inch.

Evaporation 1.460 inches. Wind velocity, 4.1 miles per hour.

BIG SPRING:

During the greater part of this week the weather has remained exceptionally cold for this time of the year, and it has caused cotton to germinate very slowly.



Big Spring, continued:

The soil was also getting so very dry that many farmers had to stop planting, but two good rains on May 12 and 13, totalling 1.03 inches, alleviated this condition in good shape; the soil is now in fine shape for planting. The rain on May 12 was accompanied by considerable wind and hail this did considerable damage to what cotton was up and also to the fruit. It knocked off most of the plums and a good many peaches from the trees in the station orchard.

Since the rains the station work has consisted mainly of planting. The cotton, broom corn, and kafir plats have been planted in the Dry-Land project besides an increase field of Sudan grass and one of two row alternate milo and cowpeas. The May 15 date of seeding of sorghums and cotton was made on the 10th as the soil was too wet on the previous day.

Maximum temperature 84, minimum 44; precipitation 1.03 inches.

LAWTON:

Another week of cool weather has resulted in slow, uneven, germination of cotton, sorghum, and cowpeas.

Wheat, oats, and barley continue excellent prospects of maximum yields. Practically all of the wheat is in full head and most of the oats are pretty well headed. Corn grows slowly by reason of the cool weather.

All but one of the listed plats of kafir were replanted May 16. About 10 tons of alfalfa from the increase field were stored in the barn in excellent shape during the week.

Some experimental cotton planting remains to be done. As soon as the weather is warm enough to insure rapid germination the work will be completed.

The monthly precipitation since January 1, 1924, is as follows:

January.....	.20 inch	----	deficiency	--	.34 inch
February.....	.11 "	----	deficiency	--	1.10 inches
March.....	2.47 inches	--	Surplus	----	.85 inch
April.....	3.88 inches	--	Surplus	----	.93 inch
May (to date)..	1.07 inches				

Maximum temperature 35, minimum 45; precipitation .35 inch.

WOODWARD:

The weather has continued cool. Rye on the Check Plats was cut for hay and has been hauled in. The first date-of-planting in plat variety tests (cotton) was planted May 15, as was also the Cereal third date of planting.

Chinese elm root cuttings have been transferred from the greenhouse to the nursery and some others were planted directly in the nursery.

A new John Deere 2-row planter was received and has been set up. The first alfalfa is being cut today.

Maximum temperature 34, minimum 34; precipitation .33 inch.





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BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 24 1924





## REPORT FOR WEEK ENDING MAY 24, 1924.

### HAVRE:

The past week has been slightly cool for the season but vegetative growth has been fairly rapid due to a rain of .42 inch on the 18th and 19th.

The planting of corn and flax was completed during the week which finishes the seeding on the plats, aside from some of the late seeded forage rotations.

Grasshoppers have hatched rather thick in places on the station, but do not appear as numerous as last year. Authentic reports state that in Pondera and Glacier Counties to the west, situated at the foot of the mountains, grasshoppers have recently hatched and are as numerous as they were in this locality last year. However, in most counties there appears to be a better understanding of control methods and it seems that a more concerted effort will be put forth than was the case last year. In the north and west part of this county there is a bad infestation and the county officials have ordered five car loads of material for poison bait.

Maximum temperature 72, minimum 33; precipitation .44 inch.

### JUDITH BASIN:

The past week has been comparatively cool and cloudy, and several moderate showers were received which relieved the threatened injury from drought to hay crops and fall grains. Only .31 inch of precipitation has been recorded thus far during May, which is practically two inches below normal. Despite this lack of moisture, none of the crops have been effected to a noticeable extent, and prospects as a whole are unusually good.

Alfalfa, sweet clover, grasses and fall wheat have made good growth. All small grain crops seeded on the rotations are up with good uniform stands. Willow, ceragana, box elder and poplar trees are in full leaf. Tartarian Maple and Acute-leaf Willow on the shelter-belt experiments killed back to some extent during the winter, but all other trees survived uninjured. A few of the apples and plums and many of the other small fruits set out in the orchard about two weeks ago are commencing to leaf out.

Corn was planted during the week and all seeding on rotations has been completed. A 25-acre field of barley was seeded and drilling operations on the increase fields of Marquis wheat are well under way. The second plantings in the vegetable garden, and plantings of sweet corn varieties were made. Fencing of hog lots was also completed.

Chancellor M. A. Brannon visited the station on May 22.  
Maximum temperature 69, minimum 31; precipitation .44 inch.



HUNTLEY:

Unseasonably cold weather has prevailed during the week and crops have not made much growth as a result of it. Winter grains and alfalfa are showing the need of rain, although no serious wilting is yet in evidence. The soil, especially alfalfa ground is beginning to crack in places.

Spring sown small grains are now all up and appear to be in good shape so far as moisture is concerned. Corn planted a week ago is beginning to emerge but the stand is not yet complete. Field work on the Dry Land project was confined to the planting of sorghum, Sudan grass and soy beans in the pasture experiments.

Maximum temperature 73, minimum 31; precipitation .14 inch.

SHERIDAN:

The weather continued fair and quite favorable for field work until the 23rd, although the temperature continued relatively low. A fairly heavy rain fell during the night of May 22, and cloudy weather has prevailed since. Corn for the variety test was planted and also an extra block for comparison of listing with level cultivation. Preparation of ground for late forage crop has continued. Potatoes were planted on the 20th.

Growth of all vegetation has continued steadily. Alfalfa, sweet clover, and the grasses seeded May 3 and 9 emerged during the week. All alleys between the plats were cultivated.

Maximum temperature 70, minimum 32; precipitation .36 inch.

DICKINSON:

Cool weather has continued through the week with a temperature of 32 or lower on five nights and a minimum of 23 degrees on the morning of the 24th. No damage is apparent from this freeze except to sweet corn in the garden. Plums in full bloom and flax in the April 12 and May 1 seedings which had emerged evidently were not injured.

Plant growth has been slow due to the cool weather. All grains have good stands and are cleaner than last year. Corn on the Rotations planted May 12 has sprouted. Grasses and alfalfa have advanced rapidly considering the cool weather. There is plenty of water in the soil so that growth of all crops should be rapid if the weather warms up.

Loring plums and prunus tomentosa are in full bloom, but other fruits are not so far along. Most of the trees and shrubs planted about a month ago have barely started growth.

Seedings of the past two weeks include varieties of corn, flax, potatoes, field peas, soybeans, millet and sorghums, and about 10 acres of Stark, Billings and N. D. 114 flax for seed increase.



Dickinson, continued:

The acreage of corn and flax being seeded in this part of the state is fully fifty per cent greater than that seeded a year ago.

Maximum temperature 71, minimum 23; precipitation .40 inch.

Precipitation to date in May 1.06 inches.

MANDAN:

#### Agronomy.

The past week, with the exception of one day, has been cold and windy, with no precipitation of value. Snow fell on the night of the 22nd. The hills were white in the morning.

All corn on the station was planted during the week. This included the rotation plats, seed blocks, varieties and about fourteen acres for feed. The ground is cold for corn, and it will no doubt be some time before it comes up, unless warmer weather comes soon.

Small grains continue to make a fair growth, and are looking fairly well, but are somewhat backward for the season.

Brome-grass and Crested wheat grass, continue to make a fair growth, but alfalfa is backward.

Maximum temperature 65, minimum 25; precipitation .12 inch.

#### Cooperative Grazing Experiment.

Native vegetation has made a light growth for the season to date, as indicated by the clipped quadrats.

The cattle have been branded, and will be started on the various pastures as soon as the initial weighings are completed.

#### Arboriculture.

The following species of conifer seedlings were received from the Forest Experiment Station, Cloquet, Minnesota, on May 17. Scotch pine, Jack pine, Norway pine, Black Hills spruce, Canadian White spruce, and Colorado Blue spruce. All of these seedlings were unpacked and graded into three sizes before being transplanted in the nursery. Planting was started on May 22, and will continue until the middle of next week. There are between 50,000 and 60,000 seedlings in all to be lined out.

The following coniferous tree seed was sent to Cloquet on May 23, for planting this spring:

Colorado Blue spruce	14 oz.
Black Hills spruce	15 oz.
Concolor fir	29 oz.
Douglas fir	15 oz.
Scotch pine	19 oz.
Bull pine	64 oz.
Red cedar	60 oz.



Mandan, continued:

#### Horticulture.

All seeding of vegetables in the field was completed. Nothing has germinated so far except onions, peas, parsnips, carrots, lettuce, radish and spinach.

Hoeing and spading of shrubbery and tree groups on station grounds continued. The Yellow flowering currant and *Spirea arguta* are in bloom.

Top-working in the Hibernial and Virginia crab orchard has been completed for this year.

A considerable amount of out door crossing work is being done. Most varieties of fruits give promise of blooming heavily this year.

#### BELIEF FOURCHE:

The weather continues cold and dry. Precipitation occurred on three days, but there was not enough rain at any one time to more than wet the surface of the soil. The rainfall for May to date is .66 inch. The average for the month is 2.72 inches. The minimum temperature was below 33 degrees every night of the week. On the morning of the 24th the temperature dropped to 23 degrees. It is believed that this did considerable injury to fruit as many of the trees were in full bloom at that time.

Small grains are in healthy condition though they are developing very slowly. A few heads are appearing in the winter rye. The winter rye has made good growth and is rapidly exhausting its moisture supply. Though the physical appearance of the plants shows that no drought injury has occurred as yet, the cracked condition of the soil in the plats is conclusive evidence that the surface layers of soil are getting very dry. Winter wheat has commenced to form straw.

Corn planted on fall plowing nearly two weeks ago has germinated but will not be up for some time unless warmer weather comes. Only an occasional kernel of the corn planted on spring plowing has germinated.

Alleys were cultivated and roads marked out during the week.

Maximum temperature 73, minimum 23; precipitation .15 inch.

#### ARCHER:

A general change in weather conditions from very dry to wet occurred May 19. Since this date there has been .90 inch of precipitation. The high humidity and daily rains have stopped field operations. The rains were much needed and the crops which are in should make rapid growth. The pasture conditions have greatly improved. The small cereals have emerged and for the most part good stands have been secured.

Maximum temperature 73, minimum 32; precipitation .90 inch.





AKRON:

Farm work progressed favorably though time has not yet been found for policing the station grounds and attending to odd jobs about the buildings and grounds which have demanded attention all spring. Field work has held all attention due to the late start this spring. Weather remains dry and it seems that the limit has been reached so that unless ample moisture comes soon all small grain yields must be cut short. Should rains come now the straw would undoubtedly be short. Rye is attempting to joint and the plats present a very yellow straggly appearance. Winter wheat and the spring sown small grains are at a stand still. Much winter wheat has died during the past three weeks so that the stands on some of the plats will not be more than 40%.

Sheep had to be turned off the rye of Rotation 51 Wednesday as they had all vegetation cropped. A longer continuance of the dry weather will undoubtedly cause its extermination. The small pine seedlings planted earlier in the spring appear to be establishing themselves satisfactorily. The older seedlings received from Mandan appear to be finding it hard to get established. Forest trees are breaking into leaf. Honey locusts are leafing out uniformly but the elms are very non-uniform in this respect. Odd elm trees about the planting show green while other trees have made no visible signs of life. Hackberries are still dormant.

Maximum temperature 83, minimum 36; precipitation .36 inch.

NORTH PLATTE:

Decidedly unfavorable conditions for growing crops have prevailed during the week. Low temperatures and high winds have been the outstanding weather features.

The mean minimum temperature for the month to date is 35.4 degrees. This is 11.1 degrees below the normal May minimum and .5 below the normal April minimum. Judged on this feature the season is therefore one month behind schedule.

Temperatures of 27 and 30 degrees were recorded last night, May 23, at the bench and table stations, respectively. In the 43 years during which Weather Bureau records have been kept at North Platte, the average date of last killing frost in the spring is April 30. Temperatures below 32 degrees have been recorded after May 15 only 9 times and after May 25 only once. It seems, therefore, that we are near the point of establishing a new record in this respect.

Rains totaling .51 inch have furnished some relief to the drought which has prevailed since late in March.

Corn planted May 5-10 is just beginning to emerge. Most of the seed used in planting the crop in this section is of low quality. With continued unfavorable temperatures prevailing the prospect of securing good stands is not very hopeful.



HAYS:

The weather was variable during the week with wide changes in temperature and strong wind all day Friday. Rain storms came within sight but fell short of the vicinity of Hays, except for .23 inch Friday night, which only laid the dust.

Winter wheat is now burning quite badly but there is still time for it to make a satisfactory recovery if rain falls soon.

Corn and sorghums are beginning to come up, but the stand will likely be ragged on account of dry spots in the soil. Spring grains have suffered but little as yet.

Rye had reached a height of three feet, was thick and heading when plowed under, Monday. Drought had checked the growth and it was beginning to burn.

GARDEN CITY:

Cool cloudy weather has prevailed again this week. Light showers were received on four days; however, the total precipitation amounted to only .21 of an inch.

Winter rye is now heading out and winter wheat is well jointed. The sorghums that were planted over a week ago are just beginning to emerge. The upper few inches of soil is rather dry, hence the slow germination of seed.

Mr. Olaf Hansen and Mr. N. Buch-Jepsen, young men from Denmark studying American agriculture, were station visitors this morning. Maximum temperature 79, minimum 40; precipitation .21 inch.

DALHART:

The past week has been both favorable and unfavorable for field operations. About the most favorable happening of the week was a nice rain. One good rain and two sprinkles were recorded. The one netted .70 inch. It seems that the rains have been only of a local nature. Just a small radius around Dalhart has been fortunate in getting rains of late. Just two miles west of the station there was not enough rain to lay the dust. Many farmers are needing rain badly in this section as well as other sections of the panhandle.

During the fore part of the week, when the fields were too wet to work, odd jobs were resorted to. Some concrete fence posts were made during a part of this time. Some of the implements that will not be needed until fall were taken apart and stored on the upper floor of the implement shed. Odd jobs of repair work were taken care of at this time also. As soon as field operations could be started the teams were put on the tandem disk harrow and work was commenced for final preparation of increase fields for planting. The preparation of the plats for the next date of planting is also complete. The meadow in front of the mess house was mowed, raked and the hay hauled out for feed.



Dalhart, continued:

Just about sundown, Friday of this week, a sudden storm arrived. It was a stemwinder for the time that it lasted which was about an hour. It was so severe that it caused considerable soil blowing everywhere in this section. This storm did not last sufficiently long to cause any damage.

Maximum temperature 32, minimum 33; precipitation .34 inch.

TUCUMCARI:

With precipitation of only .01 inch the past week and average wind velocity of 7.4 miles per hour, conditions in this locality are rapidly becoming more serious. Wheat farmers on the plains south of here claim the potential wheat crop is being reduced at the rate of one bushel per acre per day. Pastures are still holding up well, due to the abundance of moisture below the first foot. Farmers are quite generally discontinuing planting, due to the difficulty of planting in moist soil. It appears evident the estimated cotton acreage was far too high, but doubtless many farmers will prefer to risk late planted sorghums rather than late cotton.

A small percentage of the May 1 and May 15 date plat plants are up, but apparently a stand will not be procured until we receive rain. About twenty acres of increase grain and forage sorghums were lister-planted a week ago and it is probable a stand will be procured on at least a large portion of this acreage. No other planting has been attempted.

Work the past week has included building fence, disking vineyard, orchard, and tree rows, and disking and spring-tooth harrowing a large portion of the fields. Weed growth is being held to the minimum, in order that fields will be ready for planting immediately after rain, and to prevent loss of moisture in the lower level of soil.

Maximum temperature 90, minimum 41; precipitation in 1924 to date 1.56 inches. Evaporation 2.411 inches.

BIG SPRING:

The weather this week has been very warm and conducive to plant growth. The soil is warmed up now so that most crops come up within a very short time after being planted. Milo was up within four days from date of planting.

The work this week consisted mainly of planting. The Dry Land project was completed and the Cotton, Cereal, and Forage Crop cooperative projects were planted. If the weather remains favorable, all planting will be completed next week.

The cattle feeding tests which have been conducted here during the past six months will be completed May 30. At this time it is planned to have a field day meeting at the farm when the cattle will be classed and the results of the experiments announced.

Maximum temperature 99, minimum 45; precipitation 0.



LAWTON:

The weather has continued unfavorable to the growth of cotton and sorghum crops through another week. The maximum temperature ranged from 89 to 95 while the minimum temperature recorded for the week was 46. The wind velocity was higher than usual and terminated in an injurious dust storm from the north on the night of the 23rd. Many farmers living in the sandy part of the country report fields of cotton completely cut off by the blowing sand.

On the 19th a destructive hail storm ruined wheat, oats, corn, cotton, and sorghums, as well as fruit on several farms about ten miles northeast of Lawton. No hail damage occurred on the station but glass in the buildings at Fort Sill was broken to the extent of about \$3000.00.

Although the present crop season is satisfactory from the standpoint of moisture, it has been difficult to secure satisfactory stands of row crops and the subsequent growth has been slow.

Judging from the present indications the wheat crop on the station will reach maximum yields this year. Winter barley is turning rapidly, but spring barley is short, thin in stand, and weedy. Oats is in very satisfactory condition and should, in most instances, produce excellent yields.

A good many worms are now in the alfalfa and may tend to retard the second growth. Hot weather and parasites, however, easily curtail such damage.

Mr. J. R. Horton, Federal Entomologist of Wichita, Kansas, visited the station during the week. Mr. Horton is making preparations to use calcium cyanide in chinch bug control work. This material when exposed to the air generates a highly poisonous gas. The work to be done about harvest time or a little before is purely experimental and has not as yet been extensively tested for this particular purpose.

The total precipitation for the week amounted to .24 inch.

WOODWARD:

Wheat on the plats is beginning to head and is probably ahead of most of the wheat in this immediate vicinity.

Work done during the week has consisted of preparing the fields and planting kafir, cutting and hauling in alfalfa, finishing pruning of the peaches, cultivating corn and the early date-of-planting of sorghums, disking vineyard and roads between plats. The orchard is receiving its second spraying today.

Some of the Chinese elm root cuttings, which were transplanted are beginning to show new growth. The grapes are beginning to bloom and are considerably later than usual.

Maximum temperature 87, minimum +1, Evaporation 1.562 inches.

Precipitation .05 inch. Average wind velocity 6.7 miles per hour.







**WEEKLY STATION REPORTS**

**OF THE OFFICE OF**

**DRY LAND AGRICULTURE INVESTIGATIONS**

**BUREAU OF PLANT INDUSTRY**

**U. S. DEPARTMENT OF AGRICULTURE**

MAY 31 1924



REPORT FOR WEEK ENDING MAY 31, 1924.

HAVRE:

Growth for the past week was slow due to the cool dry weather conditions that prevailed. The maximum temperature for the week of 71 degrees was recorded on the 25th, with the minimum of 31 on the 29th. Although this minimum was below freezing, but little damage was noted even on tender plants. Two light showers each of .03 and two traces were recorded during the week.

Domestic grasses are beginning to show the effect of drought. Winter rye, which is heading, is also suffering slightly on all methods except early fall plowing and fallow. June grass began heading during the week. Due to the cool backward spring, leaves that started to burst over a month ago are just now reaching full size.

Flax both on the rotations and variety tests were seeded on delayed seeding. At present this land seems almost entirely free of weeds.

HUNTLEY:

The weather has continued cool and cloudy throughout the week. On the 27th the temperature fell to 27 degrees, causing considerable damage to tender crops such as beans, potatoes and some of the early corn. One farmer reported 100 acres of beans killed by frost.

Field crops have made little progress during the week but fanweed and Russian thistle are thriving to the extent that the flax and corn plats are becoming quite weedy.

All roads have been lined out and are now being disked and harrowed and alleys are being cultivated. Showers during the last few days have interfered somewhat with field work but good progress has been made in cleaning up the fields.

Maximum temperature 73, minimum 27; precipitation .40 inch.

DICKINSON:

Cold weather has continued through the week with frost on several nights. Some blossoms on early plums were killed and sweet corn in the garden was frozen but no other damage has been noted. In the tillage experiment with flax no effect of frost was evident on the two dates which had emerged.

Rotations plats were trimmed and the alleys cultivated. Corn was harrowed on the 24th and 26th. Some fence was rebuilt around the hog lots.

A patch of light soil which has blown some was seeded to a mixture of brome, oats, and yellow sweet clover.

Maximum temperature 68, minimum 24; precipitation .00 inch.

Total precipitation for May 1.12 inches. One-year average for the month 2.44 inches.



MANDAN:

Agronomy.

The past week has been favorable for field work. The weather has warmed up somewhat and there were several nice days during the week. There was no rain and it is getting dry.

On the night of the 24th the temperature dropped to 23. The small grains showed some frost injury. The barley was hit the hardest, and looked brown in the south field.

The Sweet Clover rotations were seeded for the Office of Forage Crop Investigations, also millet varieties and sorghums. Ten acres of Sorgo were seeded in Field P for feed.

Cooperative Grazing Experiment.

The cattle were started on the different pastures during the week. The cattle averaged 725 pounds per head, which was about ten pounds per head higher than last year.

The pastures have a fair growth of native vegetation on them, but they are much behind the same time last year.

Maximum temperature 71, minimum 23; precipitation 0.

Horticulture.

Continued dry weather threatens to cause poor stands of trees and shrubs planted this spring. A good rain would now be of great benefit to all fruits and vegetables.

Frost caused considerable damage to the fruit blossoms during the past week. As a result, there will be practically no apples and crabs this year, and early varieties of plums and other fruits were severely damaged. Black currants were in bloom, but seemed to be very resistant to the frost. A temperature of 23 degrees above zero was recorded.

A considerable amount of outdoor crossing work has been in progress throughout the week.

Final planting and setting out of tender plants such as tomatoes, peppers and egg plants, has been completed in the acre-garden.

The removal of tender bedding plants to semi-formal beds on the grounds is in progress. Owing to cool weather this work has been somewhat delayed this season.



Mandan, continued:

Arboriculture.

Work of lining out conifer seedlings continued during the week. It was necessary to discontinue planting work on three different occasions on account of high winds. This work is expected to be completed by the first of next week.

SHERIDAN:

The weather throughout the week has continued cold and cloudy with light showers almost every day. Field work has been possible about two-thirds of the time. Growth of all vegetation has been slow, but the condition of all crops that have emerged remains good. Corn seeded May 17 has not yet emerged, and other crops seeded since the middle of the month are correspondingly slow. The mean temperature of the month was the lowest since 1917, when it was the same as this year. Precipitation for the month was light, 1.56 inches as compared with the average of 2.51 inches from 1917 to 1923, inclusive. Moisture conditions remain good, however, because of the excess of moisture already in the soil. Grass on the range is the best that it has been in recent years.

Miscellaneous work about the station has occupied the greater part of the time during the week. Some of the alleys in the Rotation field were cultivated for the second time. Flax in the Rotation field was seeded the 30th, and the methods of seeding Sudan grass, varieties of millet, and sorgho in the variety test and on the rotation plats the 31st. The remainder of the late crops will be seeded as fast as the weather permits.

BELLE FOURCHE:

The weather continues cold and dry. The maximum temperature for the past week was only 70 degrees. Several days were cloudy and threatening, but the precipitation for the week was only .02 inch.

The continued dry weather is beginning to show on crops. The soil in most plats is crusting under the surface and a rain large enough to soften this crust would be of great value. There is still plenty of moisture in the grain plats seeded to spring grains. The winter grains do not show any suffering from drought as yet, but the soil in these plats is cracking badly and it will not be long until their moisture supply is exhausted. Alfalfa will probably not grow much more unless rain comes soon.

The total rainfall for May is .63 inch as compared with the average May rainfall of 2.72 inches. This is the only year on record except 1911 when less than an inch of rain has been received in May. The total rainfall for the first five months of the year is 3.15 inches. This is 2.66 inches below the average.





Bellefourche, continued:

One killing frost occurred. On the night of the 26th the temperature dropped down to 30 degrees for a short time. No damage to fruit resulted, though tender plants were frozen.

ARDMORE: Week ending May 24, 1924.

The weather continues very cold and dry for this time of the year. During the entire spring season there has been no precipitation of any benefit to crops. There was a very heavy white frost on the morning of the 24th. The temperature was down to 26 during the night. This is the latest date of a killing frost in the spring in the history of this station. Apparently very little damage was done to small grain crops, but alfalfa had the tips of the plants frozen back rather badly. Small fruits, such as currants and raspberries were killed, and considerable garden stuff also was killed. In the shelterbelt plantings the green ash had all leaves killed, but other trees were not damaged.

All crops are suffering for the lack of moisture. Alfalfa is about one-half as high as it should be this time of the year, and the crop is certain to be very short. Native pasture has made very little growth and does not furnish much feed. Cultivation pastures - brome-grass, crested wheat grass and sweet clover - are providing about one-half as much feed as they did during the spring a year ago.

Beef cattle which were used in the wintering experiment using home grown feed were put on native grass pastures on the 22nd. The average gains per steer for a period of 163 days during the winter months were as follows:-

Lot No. 1, 15 pounds wheat grass hay per steer daily	05.8 lbs.
Lot No. 2, 30 lbs. silage and 5 lbs. alfalfa hay per steer daily	137.9 "
Lot No. 3, 10 lbs. oat straw and 5 lbs. alfalfa hay	32.7 "
Lot No. 4, 15 lbs. alfalfa hay per day per steer.	81.4 "

Farmers and ranchers have expressed much interest in this experiment, and a special "Field Day" was held on the 21st to give everyone interested an opportunity to see the steers before they were put on pastures. Over 300 were present and many questions were asked. Much surprise was expressed over the gains made by the steers fed alfalfa hay when compared with the gains of those fed wheat grass hay. The "old timers" all believe that wheat grass hay is much the better feed. A committee of three experienced cattle men, consisting of Mr. Jack Birdseel and Mr. Ed White, of Edgemont, and Mr. Frank Downey, of Ardmore, were appointed to estimate the market price of the various lots. This committee placed the market values as follows: Wheat grass  $7\frac{1}{2}$  cents per pound, silage lot 9 cents per pound, oat straw lot 3 cents per pound and alfalfa hay 8 cents per pound.



ARDMORE:

Temporary relief from the long continued dry weather was received by a rainfall of .35 inch on the 29th and 30th. This was of little benefit to crops, but did appear to stimulate a little growth of native vegetation. Native pastures present a very dead or brown appearance for this time of the year. Some of this year's growth of grass already has dried up.

The total precipitation for the month of May this year was .75 inch which may be compared with the precipitation for the same month a year ago, which was 3.80 inches, and with the 12-year normal for this station, which is 3.25 inches. During April and May of this year there has been 4.22 inches less precipitation than the 12-year normal for these months.

Seeding of field crops of cane and millet were completed during the week, as well as the seeding of varieties of the same crops. This completes the station seeding and planting for the season with the exception of the rotation plats of flax and a small acreage of Sudan grass that is to be used for late pasture.

Maximum temperature 70, minimum 38; precipitation .55 inch.

ARCHER:

The entire week has been cool and wet. Precipitation has occurred every day with a total of 2.48 inches for the week. This with a total of .90 inch for last week makes a total of 3.38 inches for the month. Precipitation has occurred every day for the last 13 days varying in amount from a trace to .96 inch.

The mean maximum for the past week is 51.9 and the mean minimum 35.9 degrees. As a result of this condition growing conditions have not been propitious. The greatest danger occurs with the corn which has been seeded. Seeding during the past week has been almost out of the question. Some flax was seeded during the early part of the week. Today there is a change in the wind direction and a breaking of the clouds. A few warm days and vegetation should take on a rapid growth.

The milk cows have been retained in the stanchions most of the time during the last few days. The new dairyman, Mr. Glen Marpel, is here and will take charge of the dairy June 1.

COLBY: Week ending May 24, 1924.

The weather remains dry and cool. Spring grains are not making much growth. Winter wheat continues to show the effect of dry weather, except on most of the fallow plats. Barley and oats are especially short. Winter wheat is in the boot. Winter wheat will have very short straw. Corn is not showing a stand on any preparation. The past three days corn has started to emerge on fall plowing and summer tilled. If the present rate of emergence continues there will be a stand on surface planted corn on ground worked the previous summer or fall. Ground worked this spring dried out before the corn could emerge, or in most places even sprouted.



Colby, continued:

Work during the week consisted in planting a few isolated plats of corn, plowing D. L. A. summer tilled plats, hauling manure, and working some of the roads and alleys.

Visitors during the week included Mr. Pinckney of the Entomological Laboratory at Wichita; he was making a survey of the Hessian fly situation in Northwestern Kansas. He reported severe damage east of here but none to speak of this far west. Several outbreaks of the wheat straw worm, *Isosoma grande*, were noted. The dry weather evidently checked the Hessian fly so that wheat will not be severely damaged with them this season.

It is the present plan to prepare sorghum ground the coming week but not plant before the first of June unless it rains.

Alfalfa is dried up until the first cutting will be negligible. Cherries were apparently not hurt by the late freezes.

Two light showers totalling .07 inch fell during the week.

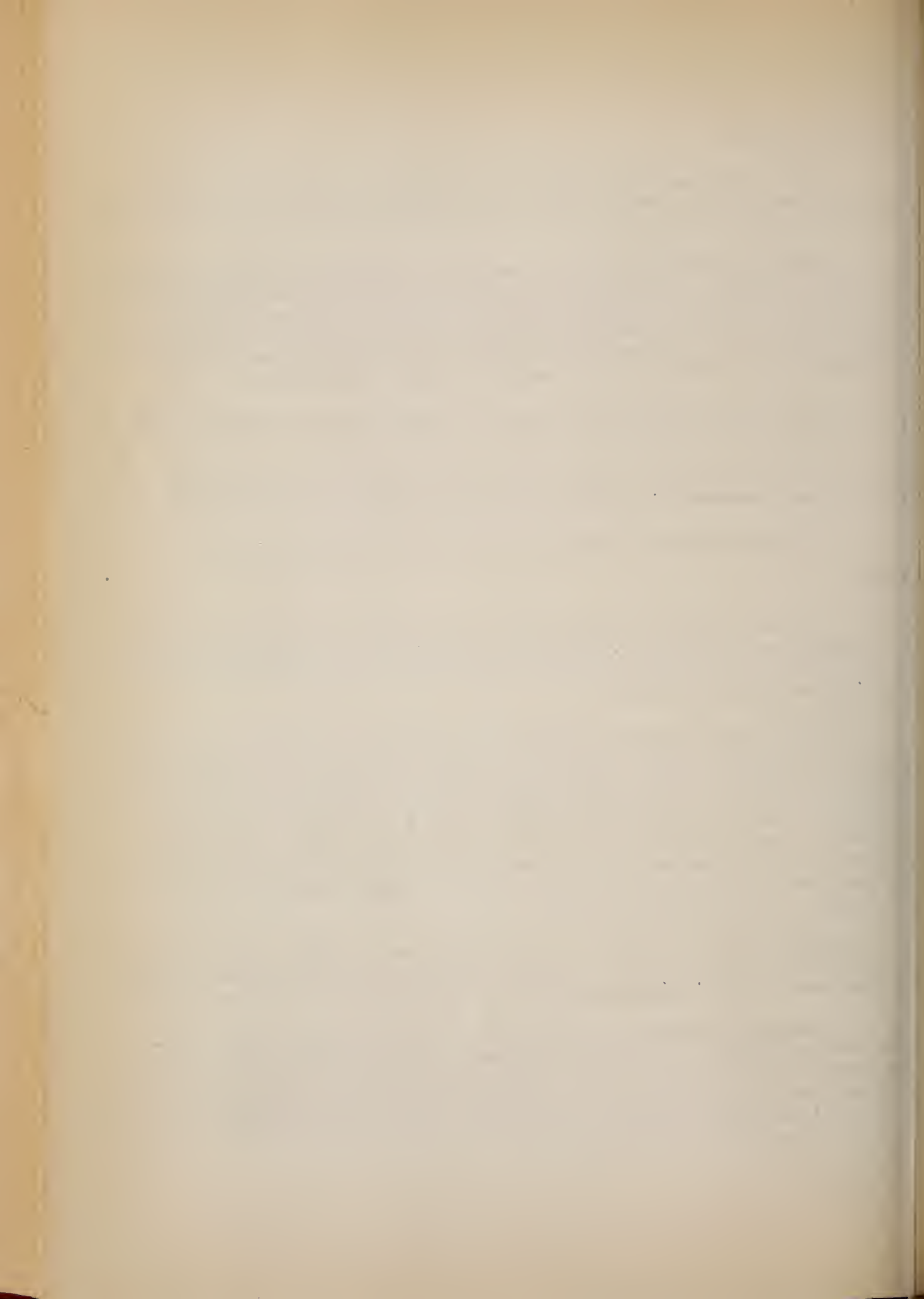
COLBY:

Weather conditions changed during the week; the first rain of any consequence was recorded during the week just closing. A total precipitation of 1.23 inches fell during the week on four days. Most of this rain fell the last two days of the week.

Winter wheat had about reached the point where a normal crop was out of the question until this moisture fell, which should hold the wheat for a while. Wheat on the best preparations did not show any damage from drought before the rain came. The spring grains are small and have not made any growth to speak of previous to the rain. Corn is not showing any stands at all except surface planted on fall plowed and summer tilled. The corn planted in listed furrows dried out before the corn could emerge. It will be several days before one will be able to tell whether replanting will be necessary on corn listed in or not.

Winter wheat is just starting to head; wheat on MCB --fall plowed-- will not average over a foot in height. A great deal of the wheat is going to have short straw. Apparently the heads are going to be of good length.

No sorghums except the first date of planting have been planted. They will be planted as soon as the ground dries out sufficiently to work, which should be by the first of the week unless more rain comes. Very little sorghums have been planted in the country as farmers have waited until moisture fell before seeding. We have sold several farmers milo for planting where corn did not show a stand.



Colby, continued:

All roads and alleys were cultivated and hoed during the week, as was also the orchard. A few scattering bindweed areas were also worked. The area for Sudan grass pasture was worked into a good seedbed the first of the week. This will be seeded as soon as the ground is dry enough to seed.

The temperatures have remained quite cool for this time of the year.

HAYS:

The drought which had commenced burning the small grain crops and was responsible for a rather poor and uneven stand of row crops has finally been broken. During the week rain has fallen on five different days with a total rainfall for the week of 2.61 inches, not including that which is falling today. One of the showers amounting to 1.03 inches fell so rapidly that considerable damage was done to the row crops by covering up or washing out of the plants. At this writing the damage cannot be estimated, but it looks like considerable replanting may be necessary.

The small grains are making good recovery from the effects of the drought. The growth of wheat is generally very heavy and averages about 50% headed. It looks very good even though the heads are a little short. As has been stated in previous reports, there are some fields in the vicinity which have been seriously damaged by Hessian fly. These, of course, do not look so good.

Because of the continuous wet weather, practically no field work has been done.

Maximum temperature 79, minimum 43.

GARDEN CITY:

It has rained just enough this week to prevent much field work. Precipitation was recorded on the 27th, 28th, 29th and 30th, with a total of .64 of an inch of moisture. The sky has been clouded during the greater part of each day.

Planting of row crops was started at noon of the 29th and was stopped on account of rain at noon of the 30th. All cowpea plats and a few kafir plats were planted before rain prevented further work. The May 30 date of planting sorghums was made as scheduled.

All corn has emerged to a fair stand. Other crops are progressing nicely.

Maximum temperature 32, minimum 41; precipitation .64 inch.





DALHART:

The past week has been unusually cold for this time of year. The days and nights have been uncomfortably cool without proper protection. The climatic conditions have been somewhat unsettled with a tendency toward stormy weather. There were several small flurries with some precipitation.

Field operations have continued unhindered throughout the week excepting Friday and Saturday. The two last days of the week have been damp, with a heavy mist and small showers. The fields are too wet to work at this writing. During the week all the plats were gone over with the field cultivator to kill the small weeds that had germinated thickly after plowing. One more working before planting ought to have them in fine shape and free from weed trouble. The plan being followed is to get as many of the weeds to germinate as possible then kill them before planting. It was planned to get all the kafir planted on the rotations this week but the rains have hindered in this respect. Everything is in readiness for the planting of the June 1 date of cereal and forage sorghums as well as cotton. The first date of cotton is just emerging. The first two dates of grain and forage sorghums are up to a good stand. Corn is also up and growing off well considering the cool weather that has prevailed. Rye on Rotation 32 was turned under for green manure during the week. It had reached its maximum development of foliage and was turned under before it began to shed its leaves.

Maximum temperature 34, minimum 42; precipitation .39 inch.

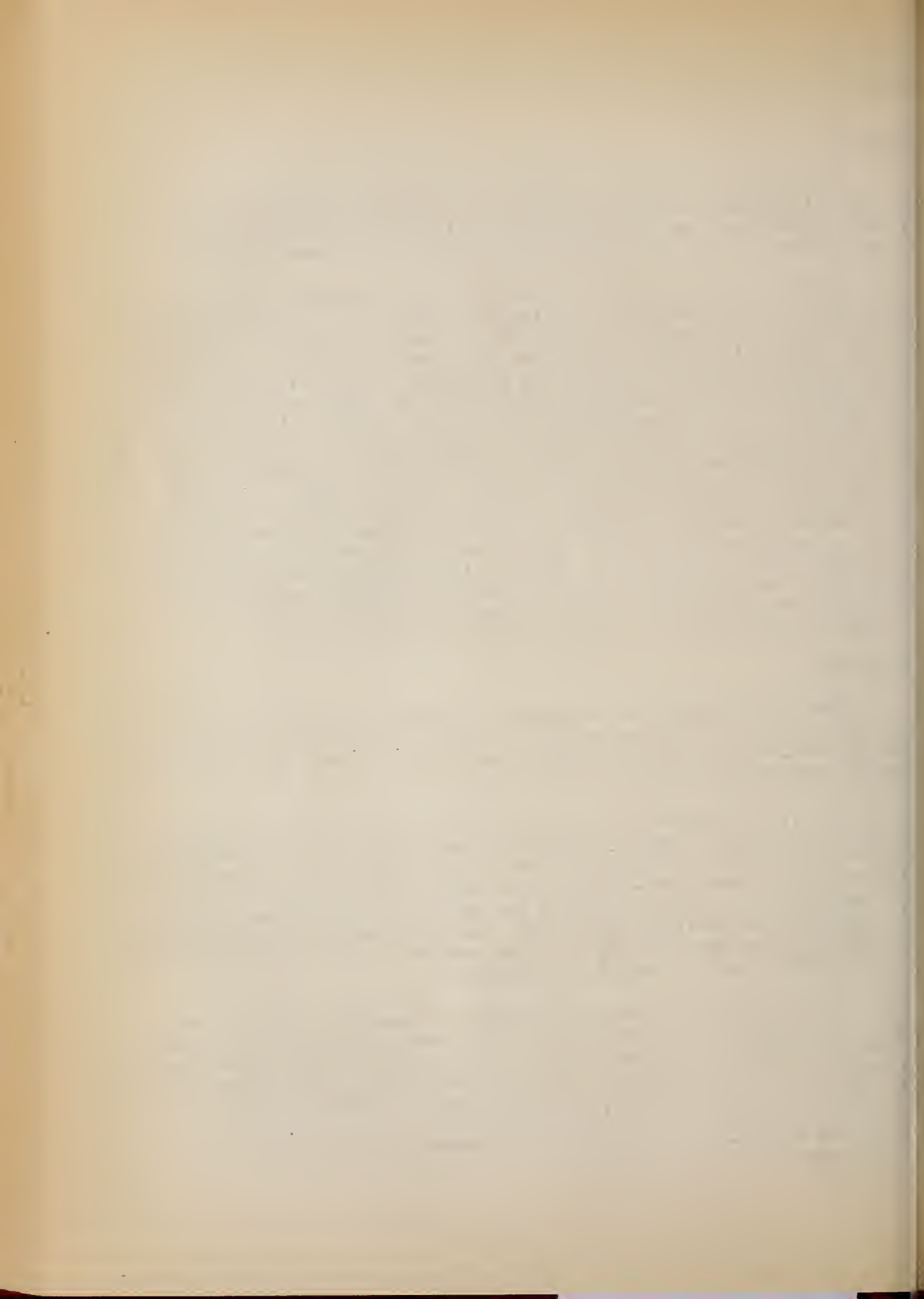
TUCUMCARI:

The drought which has continued since January 1 was broken this week, when a total of 1.53 inches was received; .11 inch on the 29th, .73 inch the 30th, and .09 inch the 31st. This amount was only .03 inch less than had been received previously this year.

No planting was done this week, for the surface soil had dried to a depth of about five inches, making it difficult to insure a satisfactory stand even with lister planting; the soil today is too wet for planting, but without doubt planting can be rushed next week. About twenty acres of increase sorghums were lister planted and on most of this acreage fair stands were emerging just previous to the rain. May 1 and May 15 date plats showed from 10% to 50% stand on May 28th. It is probable stands on these plats will be satisfactory, but very uneven in emergence.

Cultural work the past week consisted of disking, harrowing and go-deviling plats and increase fields to hold weed growth down. The soil was in excellent tilth when the rains came and there was practically no run-off. With the soil now well soaked to a depth of at least six feet a crop should be made with a minimum of rainfall. Building fence and hauling manure from the steer lots were among the jobs done this week.

Maximum temperature 39, minimum 42. Evaporation 2.071 inches. Wind velocity 6.9 miles per hour.



BIG SPRING:

Rainy weather kept the teams out of the fields the greater portion of the past week, so only a small amount of field work was accomplished. The cowpea varieties and the rate milo and kafir were planted this week, and some cotton was scratched in order that it might break through the heavy crust of soil which was formed after the recent heavy rain.

The cattle feeding tests, which have been conducted here for the past one hundred and seventy-five days, were closed Friday, May 30, when a feeders day meeting was held at the station. Although it rained nearly all the forenoon, about three hundred people attended the meeting. A representative of a Fort Worth Commission Company, and a Swift and Company cattle buyer were here to appraise the cattle. These cattle were shipped to Fort Worth today and will be sold on Monday's market.

Director Youngblood and Mr. J. M. Jone, of the Texas Experiment Station, Messrs E. W. Sheets and V. V. Parr, of the Bureau of Animal Industry, and Mr. J. E. Bogg-Scott, Chairman of the Texas Livestock Sanitary Commission, were station visitors during the past week.

Maximum temperature 97, minimum 51; precipitation 1.83 inches.

LAWTON:

Precipitation to the extent of 1.31 inches fell on the morning of the 26th. Since then the weather has been partly cloudy and unusually cool. On the night of the 31st another rainfall of .40 inch was recorded and the cold wind continues from the north.

Cotton growth is at a standstill and many farmers have had difficulty in obtaining a stand. Although germination has been extremely slow and uneven the stands on the station are fairly satisfactory. There is not much hope of improving the stand by replanting now because of the late date in the season.

Winter barley is being harvested throughout the county and an excellent yield will be obtained. The crop will be harvested June 1 on the station.

Wheat harvest will likely be a little later than usual this year. Moisture conditions are optimum, a heavy, rank plant growth obtains, and the cool weather does not hasten maturity.

The second growth of alfalfa is progressing nicely and seems to be free from any particular insect damage at the present time. A good many requests are coming to the station relative to control measures for grasshoppers and several complaints of some damage to cotton from young hoppers. This condition does not exist on the station and the reports are very unusual this early in the season.

The total precipitation for the week amounted to 1.74 inches.  
Maximum temperature 89, minimum 55.



WOODWARD:

The weather still remains cool. Most of the past week has been rather cloudy and several times has threatened to rain, but .07 inch is all that we have received. During May we have received only .50 inch of precipitation and that has fallen on eleven different dates. This is the smallest amount of precipitation that has fallen during the month of May since the station was established in 1914, while the average for the past ten years has been 3.63 inches.

Wheat is heading, and both heads and straw are rather short. We had plenty of moisture last fall, too much in fact, and the wheat did not seem to get as good a start as it should; some of the farmers reported that their wheat which was planted after the heavy rains were over made a much better growth than that which was planted earlier. Our wheat was planted about five to six weeks later than usual, as we could not get into the field to sow it earlier, and this, of course, made it so late that it did not have time to make much fall growth.

Grapes are blooming very slowly, and some varieties that have never bloomed as late as the first of June will probably not bloom before the latter part of next week, unless it warms up very rapidly. The early peaches are growing rapidly.

No planting has been done for several days, on account of the very dry surface soil. The Cereal Office fourth date of planting is being planted today, May 31.

Spraying the orchard was completed early in the week, the vineyard is being dusted with arsenate of lead to control the grape root-worm. Some grading of roads is being done to control run-off water.

Maximum temperature 82, minimum 48; precipitation .07 inch.

Evaporation 1.119 inches. Average wind velocity 4.9 miles per hour.

