WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

Not for publication without
prior consent of this division.

REPORT FOR THE WEEK ENDING MAY 7, 1932.

HAVRE:

The past week was characterized by showery conditions accompanied by low temperatures and low evaporation. Only .32 inch of precipitation was recorded at the station. At Havre there was .53 inch and at Chinook, 30 miles east, there was over an inch. This condition is characteristic of this section of the State.

Rye, both spring and winter, made rapid progress but temperatures were a little low for other spring grains, especially oats. Grasses, both cultivated and native, are growing nicely for this season of the year. Range is in good condition and with a few warm days grass should be excellent in two weeks.

Seeding of small grains on the rotations was completed on May 6 and commercial fields are over half seeded.

Maximum temperature for the week, 68; minimum, 35; precipitation, .32 inch; total precipitation for April was, 1.75 inches.

JUDITH BASIN:

The weather during the week has been favorable for field work and the greater part of the seeding has been completed on all projects. Small grains seeded two weeks ago are beginning to emerge. Winter wheat, grasses and alfalfa are making a fair growth in spite of the cool weather. Native grass is furnishing more pasture at the present time than any time since 1928.

Water supplies over the Judith Basin are very low. Wells which have always been considered to be inexhaustable are completely dry or are furnishing only a scant amount each day. Fortunately the station wells have shown an increased flow since March 1 and are supplying an amount sufficient for all present needs.

Maximum temperature for the week, 66; minimum, 28; precipitation, .18 inch.

SHERIDAN:

Continued light showers with fairly heavy rain on May 5 and 6 kept the ground too wet for much of any tillage operations during the week. Field F, which was prepared for seeding alfalfa last week, was seeded Saturday afternoon, and planting of conifers was completed at the same time. Seeding of oats in Field O was started on the 5th, but was stopped by rain before more than a start was made.

Dr. Hildreth arrived from Cheyenne with fruit stock for planting. Planting of this stock was completed, and the old orchard was pruned to some extent. The first of May seedings of small grain and flax were sown on the 2nd. Pigs for pasture feeding were vaccinated on the 3rd. Other station work consisted mainly in repairing fences and hauling manure from the corral.

Maximum temperature for the week, 71; minimum, 35; precipitation, 1.77 inches.

DICKINSON:

Cloudy wet weather during the week held up field work but was beneficial to crops already seeded. Wheat and barley on the rotations now have good stands. Oats were damaged more by the freeze, but the stand is thickening and reseeding will not be required.

Alfalfa, sweet clover and flax were seeded on the rotations on May 7.

Potatoes were planted on Rotations 414 and 415 on May 6. An increase block of Irish Cobbler potatoes was also planted.

A pasture experiment in cooperation with Dr. H. C. Hanson, Department of Botany, North Dakota Agricultural Experiment Station was seeded on May 3 in triplicated 30th-acre plots. Crested wheatgrass, bromegrass, slender wheatgrass, Reed canary grass and yellow sweet clover were seeded alone and in various mixtures. Alfalfa was used in two mixtures. These will be enclosed in the pasture and grazed by cows and horses in 1932 and later.

Dickinson, continued:

Black Hills spruce seedlings received from the Northern Great Plains Field Station, Mandan, North Dakota, were planted with ideal soil moisture conditions. Previous small plantings of evergreen seedlings have resulted in nearly total failures.

H. C. Hanson, Department of Botany, North Dakota Agricultural College, and M. B. Johnson, Agent, Bureau of Animal Industry, U. S. D. A., visited the station May 7.

Maximum temperature for the week, 67; minimum, 29; precipitation, .37 inch.

MANDAN:

Agronomy

The past week has been cloudy and rainy for the most part. Field work was delayed because of damp soil. All small grain is making a good start.

Some crested wheatgrass was seeded on hillside blocks. Seed blocks of corn have been plowed.

Cooperative Grazing Experiment

Native grass has made a good start. Grass is in good condition for grazing along the coulees.

Steers for use in the grazing experiment arrived from the western part of the State on the 5th. There are 70 head of Herefords. They look like a very good bunch.

Horticulture

The orchards were sprayed on May 2, 3 and 4, with the usual lime-sulphur and arsenate of lead mixture.

Potatoes were planted on May 6 and 7. Several of the new selections of the Horticultural Office are included in the test. Plots are replicated five times.

A ditch about four feet deep is being dug along one side of the coulee small fruit graden in order to cut roots from a group of elm trees close by.

Fruit trees are now starting to bloom, and hand crossing work in the field will start next week.

Mandan, continued:

Arboriculture

The past week has been spent in lining out surplus nursery stock and transplanting conifer seedlings. Approximately 33,000 each of 3-0 Black Hills and Colorado blue spruce seedlings have been transplanted. These seedlings were all grown from seed on the station. The soil is in excellent condition for transplanting with plenty of surface moisture which should enable satisfactory stands to become established.

The heavy frosts of the previous week did not damage the American and Chinese elm seed crop, as the seed was already set before the frost occurred. It did, however, seriously damage the ash and boxelder seed crop.

George Haines and J. W. Wellington, from the Office of Experiment Stations, were visitors on May 5, spending the entire day looking over the work.

Maximum temperature for the week, 72; minimum, 45; precipitation, .25 inch.

BELLE FOURCHE:

Cool, cloudy, unsettled weather has prevailed throughout most of the week, and small amounts of precipitation have been received nearly every day. The cool weather has retarded plant growth, but small grains, field peas, bromegrass, and native grasses have made considerable advancement. Spring wheat and barley are recovering rapidly from the effects of the frost last week, and oats which were frozen back to the ground are making a new growth. The stands on all spring grain plots have continued to improve, owing to the emergence of grain which has germinated since the beneficial rains were received. Spring wheat and oats have not yet come up with satisfactory stands on spring plowing, but most of the grain on the spring plowed plots has germinated. Approximately 50 per-cent of the bromegrass and sweet clover has emerged and the indications are that perfect stands of these crops will be obtained.

The light rains have greatly retarded the performance of field work. Alfalfa and flax plots were duckfooted and harrowed, and seeding of these two crops was completed.

Soil samples taken during the week show that moisture from the recent rains has penetrated to a depth of about 16 inches on plots cropped in 1931. Moisture is present to a depth of 20 inches on land summer fallowed in 1931.

Maximum temperature for the week, 72; minimum, 29; precipitation, .42 inch.

ARDMORE:

The weather continued cloudy and threatening during the whole week. The soil dried up enough to permit field work on only one day. General showers on May 5 and 6 wet up the soil again and raised Hat Creek out of its banks for the second time this year.

Cool weather prevailed during the entire week. Grasses and grain crops made very little growth. All fields of grain are recovering from the damage done by the freeze in April. The 20-acre crested wheatgrass pasture maintained the 14 head of steers for two weeks. The lack of growth on account of cool weather made it desirable to remove the steers at the end of the second week.

Three blocks of conifers were set out on May 2. We have had two good rains since these trees were set out, and they should have a good chance to establish themselves.

J. M. Stephens, of the Mandan Field Station, visited the station on the 6th.

Maximum temperature for the week, 72; minimum, 29; precipitation, 1.70 inches; total precipitation for the year to date, 7.04 inches.

ARCHER:

During the week the weather has been cloudy, cool and threatening with a number of squalls ending with copious showers. The total precipitation for the week was .39 inch. Nearly .50 inch of additional moisture has fallen to-day. The maximum temperature was 69 degrees and the minimum was 30 degrees. The snow drifts will probably be gone in a few more days.

Plant growth has been at a standstill and the germination of seed has been uncertain and spotted due to dry soil. The present precipitation will overcome this condition and will also give the prairie grasses the much needed moisture.

Work at the station has consisted of lengthening the seepage system of the septic tank for the Superintendent's cottage, seeding the garden and planting trees. A shelter belt of six rows of trees has been planted from the station farmstead to the Lincoln Highway and east along the highway for a quarter of a mile.

AKRON:

Some sod and some sod-back-set plowing was accomplished early in the week. Regular date seedings of corn and of spring grains were made promptly on the 5th. By Thursday, worked soil was about dry enough to work and plans were in readiness but by noon a heavy hail storm centered over the station, which deposited 1.05 inches of precipitation as hail within three quarters of an hour. This hail beat the surface soil down tightly and there was considerable run-off for the first time in about 20 months. This run-off was minimized somewhat by the slow melting of the hail, some of which was still in evidence by evening of the same day. On Friday night a drizzling rain set in which had deposited .78 inch of precipitation by 7:00 a.m. Saturday morning. The sky is still overcast with heavy low hanging clouds and some precipitation is falling at intervals. This series of rains has been sufficient to give the frogs something to croak about, and their clatter is to be heard this morning, the first time in more than a year.

The hail beat surface vegetation into the ground and beat off numbers of flowers and leaf and flower buds from the fruit trees. Seeded crops vegetation was not large enough to suffer any great damage.

The agricultural outlook for this region is undoubtedly bright to-day. However, this enforced wet spell is stacking up field work for everyone and there will be a lot of high-tension field work once the weather clears and the ground settles.

J. M. Stephens left Thursday evening for Ardmore.
Maximum temperature for the week, 80; minimum, 32; precipitation, 1.86 inches

NORTH PLATTE:

The early part of the week was spent lining out the roadways and cultivating alleys in the D. L. A. fields and seeding sweet clover in the dairy pasture plots. The last few days have been spent in preparing the ground for corn on the D. L. A. project.

Weather for the week has been generally cool and windy with one shower of rain amounting to .12 inch.

COLBY:

This has been a typical spring week. Uncomfortably hot weather alternated with chilling temperatures. It was not very windy except on the evening of the 4th, when a high wind from the southeast, accompanying a shower, wrecked some windmills and small buildings. On Friday evening .17 inch of moisture fell in the form of intermittent showers.

All crops are now making satisfactory progress. The corn and sorgo plots which were listed early in the spring to be leveled preparatory to planting with a lister by "nosing out" the same furrows, were leveled this week. The seed corn was shelled and graded. It is planned to do the corn planting this coming week.

Maximum temperature for the week, 87; minimum, 40; precipitation, .19 inch.

GARDEN CITY:

Plowing and listing of fallows was finished on the 2nd. Cultivation of alleyways and roadways, except where wheat is growing, to stop erosion was done the past week.

Wheat is making good growth but is in need of moisture to get the maximum growth at this time of the year. Spring grains are making very little growth and appear to be very unpromising for yields at this time.

Weather the past week has been very seasonable with the exception of two days of high wind and some dust. Many farmers are breaking up fall-sown wheat land for row crops. A considerable acreage of combine sorghums will go in this year.

General station work the past week has been plowing, leveling irrigation land, cleaning ditches and cultivation of row crop land to kill weeds.

Maximum temperature for the week, 86; minimum, 44; precipitation, .05 inch.

HAYS:

The temperature for the week varied from 33 to 88 degrees. It has been partly cloudy most of the time with light showers totaling about one-half inch.

Spring small grains and Canada field peas continue to make good growth. About the only discouragement at the present time for spring grains is the fact that there is a thick stand of wild buckwheat on many of the plots, especially some of the continuously cropped plots. It is believed, however, that the spring grains will outgrow the buckwheat. Rye is looking better than when last reported and has made considerable growth. Some of the heads are almost out. Winter wheat has made some growth on all plots, but the difference between the growth on various plots is more pronounced than a week ago and the color is noticeably poorer on some plots, while the growth is dark green and extremely heavy on others, especially the fallow. The poor wheat for some reason fails to respond to what appears to be ideal climatic conditions for crop growth and development.

The week, especially the latter part, has been very favorable for tillage work. Much has been accomplished in freeing the roads and alleys of vegetative growth. Fall-listed plots requiring work before seeding have been cultivated or harrowed. All plowed plots to be seeded to row crops have been harrowed severely for the destruction of a new crop of weeds just emerging. One plot of alfalfa has been seeded and the bromegrass plot reseeded. Soil samples are being collected on a number of wheat plots for moisture determinations.

Messrs. Aldous and Grandfield, from the Kansas State College, are visitors at the station to-day, May 7.

TUCUMCARI:

Station work for the week has included plowing and harrowing plots, installing underground kerosene tank, building concrete piers around water tanks, and the delayed moving of coniferous seedlings from nursery rows.

Tucumcari, continued:

Vacancies in tree rows were not filled at the usual planting time, for climatic conditions were very unfavorable. It was expected that this planting would be performed in early fall this year, but pines were growing so fast in nursery rows, with resultant crowding, that it seemed advisable to move them at this time, after the good rain of ten days ago. Jack pines have made especially rapid growth this spring, range from five to ten inches, so it is likely many will die after moving, but they are moved with a shovelful of soil, in tubs, and a fair portion should survive. Those left in nursery rows will at least have more room and can be moved either this fall or next spring.

Corn planted for the Southwestern corn borer study on April 18 has emerged to good stands, while that planted April 25 is barely up. Cotton planted April 20 is not up. Weather has been relatively cold, while a rather steady wind movement has served to dry surface soil rapidly the past week.

Maximum temperature for the week, 87; minimum, 43; precipitation, none; evaporation, 2.238 inches; wind velocity, 7.7 miles per hour.

DALHART:

Plowing of land for sorghums and disking of tree plantings, vineyard, and rotation plots occupied the time of the station force during the week. Cotton went into a relatively moist and warm seedbed the first of the week.

The ground continues to work fine after the rain of the preceding week. Weeds are coming thickly everywhere, apparently they are coming earlier and faster than usual. An excellent growth of sweet clover was turned under for green manure.

Apparently the only damage from the frost of last week was to the grapes, which were in the 'buds bursting' to 'shoots starting' stage. On some of the earlier varieties apparently all of the young growth was killed

A larger acreage of row crops than usual will be planted here this year, the increase acreage being on land which was seeded to winter wheat in dry soil last fall. Most farmers are depending upon their own seed supply for this year.

Maximum temperature for the week, 87; minimum, 41; precipitation, .10 inch; evaporation, 1.481 inches, wind velocity, 6.2 miles per hour.

BIG SPRING:

Field work was stopped on May 6 by a rain totaling .40 inch; this was followed by a light shower the following night so that no field work could be attempted during the latter part of the week.

The wheat plots are looking better now than they have at any time for the past several years. All plots are well headed and present a very healthy color. Their present condition indicates now that they may all be harvested with a binder this year, which will be quite unusual.

The May 1 date of planting of cotton was made on the second. This consisted of one plot each of Rowden, Mebane, and Half and Half varieties. Other work has consisted of disking the field for cooperative plantings and also part of the rotation block. The orchard was harrowed and the evergreen planting was cultivated during the week.

Maximum temperature for the week, 87; minimum, 52; precipitation, .43 inch.

LAWTON:

Growth of small grains and grasses advanced rapidly during the past week of favorable temperatures that ranged from a minimum of 56 to a maximum of 83. Four days of partly cloudy to cloudy, threatening weather produced local rains that varied from .13 inch on the station to a very heavy rainfall in the northwestern part of the county.

Practically all of the wheat, winter oats, and spring seeded oats on the station are fully headed. Fall seeded oats have attained a very good height, but spring seeding is heading very short. The heading period of oats started about the same time as it did last year but will be completed in less time. Wheat on the rotation plots is heading about a week earlier than it did a year ago. Winter barley heads are showing a decided brownish cast, and the crop will likely be ready for harvest the latter part of the month. Much additional moisture is necessary to fill the heads satisfactorily.

Cowpeas planted May 3 emerged to nearly perfect stands on the 7th. Emergence of kafir and feterita planted May 2 was quite promising on the 8th. Several acres of alfalfa seeded on May 2 was up to a perfect stand on the 7th.

The first cutting of alfalfa will be made within a few days. On the upland, the crop is very light and too weedy to be of much value. Creek bottom fields will, in general, be very good.

WOODWARD:

The past week has been cool, cloudy and pleasant. During the week much wheat has headed out. Very rarely is there as great a difference in the appearance of the wheat due to differences in cultural methods as at present. That on late prepared land has short straw, a thin stand, and small heads, while that on fallow is well developed in straw and heads.

Throughout the country are many dead or injured trees, due to the capricious temperatures of the past two years. While the Chinese elm, the Chinese juniper and the Oriental arborvitae suffered the worst, even the native red cedar and the native American elm were in many cases injured or killed.

Due to continued spring rains many native flowers are beginning to bloom, and the station has been a show for several weeks with daffodils, redbud, spireas, flowering locust, iris, elder, and mock orange flowering one after the other.

Due to the cool damp weather date plantings of cotton, soybeans and other crops are emerging rather slowly. Early plantings of corn were attached by field mice, but these were easy to exterminate by the use of poisoned bait.

Nearly the whole station not in crop has been covered the past week with disc, lister, or plow. Work on culverts, machine shed and general repairs is proceeding rapidly.

Maximum temperature for the week, 84; minimum, 51; precipitation, .08 inch.

HUNTLEY:

The weather has continued rainy throughout the week and no field work was possible. Crops and weeds have responded to the abundance of moisture and higher temperatures and have made a good growth. Spring grains are up with good stands on all plots in the rotations. In the variety tests and miscellaneous experiments seeded at a later date, the plants are just coming through the ground.

One torrential shower of .59 inch during the week was the first rain of the season in which run-off occurred. Following this brief, but rapid, downpour, water to a depth of 6 to 10 inches covered the low spots in the fields and did some washing in roads and across sloping plots.

Maximum temperature for the week, 68; minimum, 39; precipitation, 1.26 inches.

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REPORT FOR THE WEEK ENDING MAY 14, 1932.

HAVRE:

Conditions were quite favorable during the week. There was no interference with field work due to rain but there is enough moisture in the soil from previous rains to keep the crops growing and to afford good germination to those that are being seeded. Temperatures were higher than for the previous week and vegetation made rapid growth.

Excellent stands of all spring grains have been obtained. Early growth is very rapid. Grasses are farther along than usual for this season. Crested wheatgrass is rather outstanding this year with a growth in rows at this time of nearly a foot. Winter rye is in the shooting stage.

Shrubs and fruit trees show practically no injury from the freeze of two weeks ago. Lilacs, caragana, currents, apples, wild plum and flowering plum are in full bloom now. Honeysuckle and spirea are nearly ready to bloom.

Winter wheat was the most complete failure since the station started and was reseeded during the week. Some plots were nearly 100 percent killed. There was quite a little winter injury to alfalfa and in some cases it was severe. Some of the older irrigated fields in this section have large spots where the plants are either dead or severely weakened. On dry land at the station, the only alfalfa to survive is Ladak and the older seedings of it were injured. The younger plantings of Ladak in rows show very little injury.

Maximum temperature, 85; minimum, 38; precipitation, none.

JUDITH BASIN:

Ideal growing weather prevailed during the week. All spring grains have emerged with good stands. Russian thistles are numerous, especially on the poorer methods. Alfalfa, grasses and winter wheat have made a rapid growth. However, the soil moisture has been depleted by alfalfa and all grasses to the extent that additional growth will be scant unless moisture falls soon.

Judith Basin, continued:

Additional seedings of alfalfa, crested wheatgrass and bromegrass to the extent of about 75 acres were made during the week. Trimming plots, cultivating alleys and forage crops seeded in rows has also been done during the week.

Maximum temperature, 82; minimum, 40; precipitation, .08 inch.

HUNTLEY:

Warm, drying weather has prevailed throughout the week and by the 11th the fields were again in condition for working. Plowing of land for corn was resumed and some surface tillage was given ground prepared for seeding grass and alfalfa.

Fall pigs were weighed and placed on pasture on May 12 and spring pigs on May 13.

Crops seeded just before the torrential rain of a week ago are having difficulty in penetrating the crust which has formed over the plots during the last few days. Unless showers are received soon to soften the ground there will be considerable damage done these crops through smothering of the seedlings.

J. M. Stephens visited the station on the 9th.

Maximum temperature, 87; minimum, 46; precipitation, trace.

SHERIDAN:

The entire week was fair and warm and with comparatively little wind. All vegetation including weeds made a rapid growth. Phosphate fertilizer was drilled on land for small grain and corn and on some old seedings of alfalfa and grasses, all on land not used for other experimental work. Flax was sown in the rotations, dates of seeding, and varieties. Plowing for corn and sorgo in the rotations is being completed to-day, May 14. All fall plowing, and land to be stubbled in, for late crops was duckfooted.

J. M. Stephens visited the station on the 7th and 8th.

Maximum temperature, 85; minimum, 38; precipitation, trace.

DICKINSON:

The fore part of the week the weather was fair with normal temperatures; during the latter part of the week temperatures were above normal with a maximum of 90 degrees on Friday, May 13. Sunshine during most of the week was beneficial after two weeks of cloudy weather.

Corn was planted on the rotations on May 12. Ground was plowed for the corn varieties and plowing started on an increase field of corn for silage.

Small grain plots on the main rotation field were trimmed; field peas and root crop varieties were planted; and all perennial row crops were cultivated during the week.

Most of the plums, apples and crabs are now in full bloom. Nearly all varieties have exceptionally heavy bloom, and there is now more bloom in sight than ever before on the station. The fruit crop last year was a total failure, but heavy rains in September and favorable conditions during the fall and winter have resulted in very little killing of trees. The outlook now is for the best fruit crop ever harvested at this station.

Maximum temperature, 90; minimum, 35; precipitation, .03 inch; precipitation May 1 to 14, .40 inch.

MANDAN:

Agronomy

The past week has been favorable for all field work. No rain fell during the week, and the surface soil is getting very dry.

Potatoes were planted in the rotations early in the week.

All land for corn has been plowed and prepared for planting.

Crested wheatgrass and alfalfa are both making a good growth.

Cooperative Grazing Experiment

Native vegetation has made a fairly good growth and is now in good condition for grazing. The cattle were branded early in the week.

Mandan, continued:

Horticulture.

Warm sunny weather has prevailed during the past week, and fruit trees have been coming out into full bloom very rapidly. Most of the plums have now passed the full bloom stage, and apples and crabs are now blooming profusely. In general the bloom has been unusually heavy for most kinds and varieties of fruits. Hand crossing work in the field has been in progress throughout the week.

Some winter injury, or at least delayed growth, is now showing up on trees that looked all right a few weeks ago. Some of the F.P.I. introductions from Australia will show considerable killing back. Nevertheless, most varieties of fruits show no injury, and the amount of winter injury in general will be much less than usual.

The first cultivation of the season has been completed. Pepper grass was starting to show considerable growth.

Second planting of vegetables in the Acre garden, including sweetcorn, peas, waxbeans, cucumber, melons, squash, pumpkin, carrots, and beets, was made May 7-8. The first planting, with the exception of potatoes, are up with a fairly good stand. The top soil is now very dry and rain is needed for garden stuff of all kinds. Asparagus is yielding heavily this year. Reading Giant, as usual, is leading in both yield and quality.

The grounds have been given a clean up the latter part of the week, lawns mowed and thoroughly raked; perennial beds and shrubbery hoed and cultivated.

The warm weather of the last few days has brought things along with a rush. Spirea arguta, Ribes aureum, and Crataegus crusgalli are in full bloom in their respective locations. Common and French hybrid lilacs are showing color and should be in full bloom next week. Tulips also are beginning to brighten things up.

Two shrubs in the arboretum, lesser known and not planted on the grounds, deserve to be more widely used. Siberian almond (Amygdalus nana) and the single flowering form of double flowering plum (Prunus triloba simplex) have been a mass of pink for about two weeks. The former is extremely dwarf, the bush not exceeding two feet, while the other towers about 8-10 feet. Various S.P.I. crabs in the same location appear to be very promising material for ornamental planting.

R. L. Shotwell and F. A. Morton, Bureau of Entomology, Bozeman, Montana, visited the station on May 14.

Maximum temperature, 91; minimum, 40; precipitation, .02 inch.

BELLE FOURCHE:

The weather during the week has gradually become warmer and more settled. The last two days were quite hot for May, maximum temperatures of 85 and 91 being recorded. Several light showers occurred early in the week, but no measurable amount of precipitation was received.

The warm weather has caused all crops to make an unusually rapid growth. Flax and alfalfa seeded May 7 are starting to come up, and spring wheat reseeded May 10 on winter wheat plots appears to be well germinated. A heavy soil crust is interfering with the emergence of some of the bromegrass, sweet clover, and late germinating small grain seeded before the recent rains, but fair stands of these crops have been obtained on the various plots.

Winter wheat failed to recover satisfactorily, except on summer-fallow, and the various plots with deficient stands were duckfooted, harrowed, and reseeded to spring wheat early in the week. Other field work has consisted of duckfooting and harrowing all corn plots, planting corn, and manuring fallow.

Maximum temperature, 91; minimum, 38; precipitation, trace.

ARDMORE:

Much warmer weather prevailed during most of the week and crops showed rapid development. Winter rye is now ten inches to a foot in height and is making a vigorous growth. Other small grains have recovered from the injury caused by the freeze and are now growing normally. Early native grasses, such as Western bluegrass, have commenced to head.

The soil dried out sufficiently to permit field work by the middle of the week, and the remainder of the week was devoted to preparing land for and planting corn. The plots in the rotations were planted on May 13. The small fields were planted on May 14.

Soil samples show that the soil on land cropped last year is wet to a depth of two feet. Land fallowed last year is wet to a depth of at least four feet.

Maximum temperature, 88; minimum, 39; precipitation, none.

ARCHER:

During the past week the weather has been warm and clear with rather high humidity. To-day, May 14, it is cloudy. The maximum temperature was 78, and the minimum 36 degrees. The total precipitation for the storm period which was in the final stages a week ago was .89 inch.

The moisture and warm weather have been favorable for agriculture in this section. The prairies have turned green and the perennial forage crops have responded to the favorable environments. The winter cereals are tillering considerably and the spring cereals have produced good stands.

Weeds also have been making the most of the favorable growing conditions. Due to their growth it was thought best to duckfoot the spring cereal plots which were stubbled-in. These plots have been re-seeded.

Work at the station has consisted of constructing a fence for the protection of the new shelterbelt, planting trees, duckfooting and harrowing flax plots and harrowing the sunflower and corn land in the dairy field. The seeding of sunflowers in the dairy field is in progress.

The dairy cattle were turned into the pastures May 11.

AKRON:

The week was favorable but ground remained too wet for some sorts of field work. Temperature was unseasonably warm which, together with the ample moisture, caused vegetation to shoot upward. The result has been a thin, stringy appearance of the winter and the spring seeded small grains.

The trimming of the rotation and the cereal variety plots was completed and the roadways duck-foot cultivated. Land intended for corn was spring-tooth harrowed towards the week end. Other work was the backsetting of some sod land plowed last year, cultivating the orchards, burning of accumulated thistles along the fence rows, etc.

Maximum temperature, 82; minimum, 40; precipitation, .05 inch.

NORTH PLATTE:

Weather features of the week were high temperatures, considerable wind and no rain. Spring grains, alfalfa and pastures made good growth.

Corn on the D. L. A. plots was planted May 10, and good headway was made on the variety and general field plantings, during the week. First date of planting made April 30 began emerging May 12.

Winter wheat reseeded May 1 looks unpromising. The plants have matted down in the drill rows and if erect growth does not develop very soon, there will be little chance of successful competition with weeds.

COLBY:

This has been a good week for growing crops and for the planting and germination of corn. There has been no rain, but the temperatures have been warm both day and night. The wind movement was low.

All the small grains, especially winter wheat, have made rapid growth. The winter wheat is beginning to show that it is drawing heavily on the moisture of the soil. A rain will be needed soon to keep it growing as it is now.

The corn plots were planted this week. There was an abundance of moisture in all plots. The plots which are to be planted to milo, kafir, and feterita with a lister were one-wayed Friday, May 13. Those that are to be planted with a surface planter were gone over with a rotary rod weeder to kill the numerous weeds which were starting. The fallow plots, which were worked last fall, were also gone over with the rod weeder.

Maximum temperature, 86; minimum, 41; precipitation, trace.

GARDEN CITY:

Fall-plowed plots, fallows for row crops and fall listed ground were worked the past week to destroy weed growth and to get the ground in condition for planting. All of the work was done with a "15" Caterpillar tractor as power, pulling a rod weeder and ridge buster. No difficulty was experienced in handling the implements on single plots and turning in the 20-foot roadways.

Without question the quality of work done in the above operations was superior to that done when using horse-drawn implements, on account of being able to work the ground deeper and to thoroughly pulverize the surface.

Wheat is seriously in need of moisture. Many plots are nearly heading at about 15 to 18 inches in height. The wheat is beginning to fire slightly and wilts considerable during the day. General conditions over the country show the wheat seriously in need of moisture.

During the week alleyways and roadways on part of the project were cultivated. Weeds are coming fast. Wild barley, commonly called June grass, is getting to be quite a pest in some places. It may be necessary to plow up some plots of wheat in order to destroy the seed crop of this weed and to prevent its interfering with cropping in the future.

Maximum temperature, 86; minimum, 43; precipitation, .06 inch.

HAYS:

The weather generally has been dry and warm with gentle breezes part of the time. A light wind to-day borders on the verge of a hot wind.

All small grain crops are wilting. Winter wheat, especially on poorly prepared plots, is wilting badly. Reports come in of wheat "getting thinner". This is simply a result of failure of many of the stools to develop stalks. On this account estimates of wheat yields are being further reduced. Wheat on fallow continues to look well and promising. On early fall preparation fair. The spring small grains, although wilting, are not suffering. The growth of these crops covers the ground and is beginning to make stalks. On the oats and barley there is a discoloration showing on the edge of many of the leaves as if burned. This commenced showing only two days ago and the area covered is increasing.

Hays, continued:

We are suspicious that this discoloration is due to something other than drought. Rye had reached a height of two feet and was about 75 per cent headed when plowed under May 13 for green manure. The stand and growth was even but quite thin. Peas are about six inches high. The bromegrass plot seeded in April has been reseeded and is now coming up with prospects good for a stand. Alfalfa recently seeded is up to a good stand.

During the week a large number of soil samples have been taken on wheat plots and considerable tillage work has been accomplished.
Maximum temperature, 90; minimum, 39; precipitation, .04 inch.

TUCUMCARI:

Two rains totaling 1.56 inches the middle of the week came at an opportune time to aid surviving wheat in this area and to improve planting conditions of row-crop land. Very little planting has been done in this locality, for the soil is still cold, but good progress should be made next week.

Work of the week included completion of transplanting evergreens, grading field roadways, spraying orchard, trimming wheat and rye plots, and disking increase land.

Conditions have improved materially the past three weeks, for since late April precipitation totaling 2.55 inches has been received. Ranges are improving fast, planting conditions are excellent, and trees and lawns are in good condition.
Maximum temperature, 83; minimum, 44; evaporation, 1.703 inches; wind velocity, 4.2 miles per hour.

DALHART:

Two rains, which totalled 1.24 inches, the first of the week delayed seasonal work somewhat. Plowing was only possible on 2½ days of the week. The May 10 date-of-planting of cotton was not made until Friday. Cotton planted on the 2nd is up to good thick stands.

Wheat is heading and gives promise of better yields than appeared possible a month ago. Most of the wheat acreage is a complete failure in this section. The thin wheat will not stool enough to pay to harvest.

Dalhart, continued:

Russian thistles are coming thick every place. Pastures are just getting green enough to furnish some grazing.

Maximum temperature, 81; minimum, 40; precipitation, 1.24 inches; evaporation, 1.541 inches; wind velocity, 4.1 miles per hour.

BIG SPRING:

Only two days during the past week have been favorable for field work on account of excessive rains which were received on Monday and Tuesday nights. During this time 1.98 inches was received in a short period of time with the result that considerable run-off occurred. Many sections of the county received much more rain than the Station, and were damaged very materially by washing, many fields being washed to the bottom of the lister furrow. Much damage was also done to roofs and windows by an exceedingly heavy hail which accompanied the rains in certain sections. Practically everything in the county that was planted before the rain will now have to be replanted.

Station work during the greater part of the week has been devoted to miscellaneous jobs such as cleaning and treating planting seed, and repairing machinery. A new pair of scales was also installed at the feeding plant. Some of the fields were harrowed as a precautionary measure against a possible heavy wind which would start the soil to blowing.

Maximum temperature, 84; minimum, 50; precipitation, 2.16 inches.

WOODWARD:

The past week has been perfect for getting field work done. Practically the whole farm is free of weeds, awaiting the planting of the sorghum crops. However, soil is drying too rapidly for the best stands to be secured on date of planting work. Work of the week consisted of hoeing, mowing weeds, repairing roads, plowing and cultivating.

The very heavy fall growth of wheat evidently exhausted the moisture until it did not have enough to make normal development this spring. Wheat on fallow seems at present to be in condition to yield twice what wheat on continuous methods will yield. Wheat in the general region of the station is estimated to yield not over ten bushels to the acre.

Woodward, continued:

Corn, of which a considerable acreage was planted this season, is growing very slowly.

Trees and shrubbery are putting out leaves and blossoms in a half-hearted manner, due to setbacks occasioned by late low temperatures after an unusually warm winter.

Alfalfa made only a short growth, due to freeze injuries, and is now suffering from drought.

The hundred varieties of iris on the station are attracting much attention. There is no other plant that gives such a wealth of bloom with as little care as the iris. About old, abandoned house sites it holds its own against native weeds and grass. The iris has been too little appreciated. With only a few varieties it becomes monotonous in a planting, with many it makes a most attractive show.

Maximum temperature, 88; minimum, 44; precipitation, .02 inch.

PENDLETON: Report for the two weeks ending May 7.

The rotation corn was planted on April 25. The corn varietal trial, consisting of eleven varieties, was planted on May 4.

All crops are now growing rapidly. Winter wheat is now about knee high. The alfalfa is about twenty inches high; the first cutting should produce a much high yield than last year.

The majority of the farmers in this vicinity will complete their spring plowing for fallow this week. About twenty acres remain unplowed on the station.

In recent soil moisture and nitrate samplings the nitrates are shown to be accumulated in the third foot of soil. This is contrary to the usual conditions here. The highest nitrate accumulations are as a rule in the first foot of soil. The nitrates probably were carried down by the heavy rains during March. Last fall the old plowed corners were gone over with a Killifer subsoiler at a depth of 22 inches; this spring on land cropped to winter wheat each subsoiler mark is plainly visible by a yellow strip of wheat. This no doubt is due to the downward leaching of the nitrates below the present depth of the plant roots.

Maximum temperature, 75; minimum, 34; precipitation, .32 inch.

PENDLETON:

The past week has been ideal for all crops. The rotation corn is emerging with good stands. Field mice are digging out the corn in a few rotation plots.

All plowing on the station was completed this week. Practically all the spring plowing has been harrowed once.

Winter wheat is now in the boot stage. The early winter wheat varieties will soon be heading. Fall rye is fully headed.

The effect of commercial fertilizers on land continuously cropped to wheat is more marked than in any previous year.
Maximum temperature, 83; minimum, 32; precipitation, none.

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NOTE:

Under date of May 12, 1932, the U. S. Civil Service addressed letter to the Secretary of Agriculture, reading, as follows:

"Confirming our telephone conversation with Mr. Gladmon, the Personnel Officer of the Department, you are informed that the rating of the papers from the examinations for Field Assistant, Field Aide, and Assistant Field Aide is now proceeding. The Commission requests that no further requests for temporary appointments to these positions be forwarded. The Commission will very shortly be in position to honor requests for certification and these should now be forwarded in lieu of requests for temporary appointment."

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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

Not for publication without
prior consent of this division.

REPORT FOR THE WEEK ENDING MAY 21, 1932.

HAVRE:

While conditions are not unfavorable they are not entirely satisfactory because this is the second week with practically no rainfall. Showery conditions have prevailed on several days and in certain sections there have been showers, especially in the mountains. Evaporation has not been especially high.

Corn planted on May 14 is well sprouted and that planted on the 6th is up in very good shape. Fallow on the rotations was completed during the week. All fallow on the station should be done by the last of next week. Early winter rye is in the boot. It is a little short and unless rain comes it will not be heavy. Crested wheatgrass that was well advanced has made rapid growth during the past few days. Stands of all spring grains are excellent. The growth is fairly good but would be hastened by light rains. June grass began heading out during the week.

To date there has been no damage from cutworms and at present there is no danger from grasshoppers. Weeds are making fairly rapid growth. Russian thistles are very thick on land that is being fallowed.

Tulips have been blooming in nice shape for several days and spirea is beginning to bloom. Fruit trees and many of the ornamentals show very heavy blossom this spring.

Maximum temperature, 83, on the 20th; minimum, 35, on the 15th; precipitation, .08 inch, recorded on three days.

JUDITH BASIN:

The few, light showers during the week failed to improve soil moisture conditions. A heavy windstorm on Wednesday, May 18, did more damage during the short time it lasted than all of the benefit that resulted from the three or four light showers. Spring grains have made a fair growth during the week. Winter wheat has made a good growth but is beginning to show the effects of the dry weather. The growth of alfalfa and grasses is at a standstill and unless moisture falls soon yields will be materially reduced.

Judith Basin, continued:

Several of the plots of spring grain where Russian thistles were especially numerous were double-disked and reseeded during the week. Plowing for corn as well as the plowing of fallow and the rye green manure plots has been completed.

Maximum temperature, 79; minimum, 33; precipitation, .25 inch.

HUNTLEY:

Crops and weeds have made good growth during the last week. Where stands of winter wheat and alfalfa are thick the plants are showing the need of moisture. Winter wheat is jointing and winter rye heads are in the boot. Stands of spring grains on the late-sown plots continue to increase as they are able to force their way through the crusted surface soil.

Field work consisted of planting corn and sunflowers, preparing land for beans and sorgo, and duckfoot-plowing miscellaneous fallow strips.

Maximum temperature, 83; minimum, 32; precipitation, .16 inch.

SHERIDAN:

Fair weather continued over the entire week with temperatures above the average for the season. Rain on the evening of the 14th kept surface moisture conditions good and did not interfere in any way with field work.

Preparation of land for corn was completed, and the corn was planted. Growth of all vegetation continued good. Flax emerged with good stands in the rotations, varieties, and earlier dates of seeding. Hogs were weighed and turned into pastures.

Maximum temperature, 84; minimum, 37; frost at Sheridan and some nearby localities, but none apparent at station; precipitation, .74 inch; total for May now just equals the station average of 2.51 inches.

DICKINSON:

Dry weather throughout the week was favorable for field work, and crops which were up developed well. Rain is greatly needed for all crops and particularly for late seeded crops which are emerging unevenly because of the dry surface soil.

Dickinson, continued:

Wheat and barley on the rotations have good stands and are excellent in appearance. Early seeded oats were damaged by the freeze on April 26 so that some rotation plots and the varieties are generally thin, particularly where seeded on disked corn ground and fallow. Where seeded on spring plowing, fall plowing, or in disked stubble, or where seeded later, the stands are satisfactory. A few plots in Field N were reseeded during the week. Rye is heading and is of good height and color. Early selections of crested wheatgrass are beginning to head.

Corn planted on the rotations May 12 is emerging. A full stand will not emerge, however, until after a rain. Planting of the increase field of Northwestern dent corn was finished May 20.

Flax was seeded May 17, and potato varieties were planted May 18.

Cultivation and hoeing in trees and row crops were continued. Maximum temperature, 89; minimum, 32; precipitation, trace.

MANDAN:

Agronomy

The past week has been favorable for all field work. It has been dry, with some warm and some cold days.

Corn was planted in the rotations on the 17th. Corn varieties and corn varieties for silage were planted on the 16th. Seed blocks and the corn-breeding block were planted early in the week.

Small grains are looking good, but rain is needed. The grasses are starting to show the need of moisture.

Cooperative Grazing Experiment

Steers were started on the pastures early in the week. The average weight per head at the start of the pasture season was 784 pounds. The steers are a very good bunch of grade Herefords.

The native vegetation is in good condition for grazing, and is furnishing an abundance of feed at present. Bromegrass is in excellent condition for grazing.

Mandan, continued:

Arboriculture

The past week has been spent in removing dead wood from the combinations, testing blocks, and pruning, spacing, and methods of cultivation tests. With the exception of poplar and willow species, boxelder has shown the highest degree of injury during the year. Killing back in this species has been very severe with complete elimination of a large number of trees. Northwest poplar and soft maple are commencing to show a heavy mortality. Both of these species have shown a high survival until the past two years. Very striking evidence is offered this year by sharpleaf willow and Tartarian maple under the different forms of pruning and cultivation. The clean cultivated, non-pruned, and moderately pruned blocks, and neglected blocks, show only minor injury on these two species. The severely pruned, and mulched blocks show this year practically 100 per cent dying out for sharpleaf willow and very severe killing back in Tartarian maple.

All tree seeds planted the first part of April have emerged during the past 10 days. Surface layers of the soil, however, are so dry at the present time that very little growth is being made.

Horticulture

It now appears that we are reasonably safe from late spring frost damage, and there should be a good set of most fruits. Crossing work in the field is now completed. This work was carried on with apples and crabs, plums, sandcherries, cherries, gooseberries, and Juneberries.

Other work included suckering currants and gooseberries, working on hotbeds for softwood cuttings, and pulling of weeds in seed beds.

Visitors for the week included the Science class from the Mandan High School and the Smith-Hughes High School class from Mott, North Dakota, accompanied by about 100 farmers, under the direction of the Smith-Hughes instructor, J. E. Bough, of Mott.

Maximum temperature, 93; minimum, 34; precipitation, trace.

BELLE FOURCHE:

Most of the week has been warm and favorable to plant growth, but a couple of days were unusually cool. A light frost occurred the morning of May 16, when a minimum temperature of 31 degrees was recorded.

Belle Fourche, continued:

No damage was done to field crops or fruit blossoms, but some of the more tender garden crops were injured. Two negligible light showers were received early in the week, and a slow drizzling rain occurred on May 20. The precipitation has hardly been sufficient to be of material benefit to crops, but the sky continues to be overcast and the prospects for additional rain are promising.

The soil has dried rapidly during the past two weeks, and another good rain is needed. Soil samples taken May 17 show a 3 to 5 per-cent decrease in the moisture content of the first foot of soil since May 4.

All crops, trees, and shrubs have made a vigorous growth. The growth of sweet clover seeded this spring has been particularly rapid. Flax and late-seeded spring wheat are up, but alfalfa apparently will not emerge with satisfactory stands until after a good rain.

Field work has consisted of harrowing corn plots, planting potatoes, cultivating alleyways, and trimming plots.

Maximum temperature, 89; minimum, 31, precipitation, .41 inch.

ARDMORE:

A rain of .68 inch the night of May 14 wet up the soil again and kept all crops in good growing condition. Alfalfa has made more growth than for several years, and a fair hay crop should be secured. On some fields the hay crop will be cut down materially by the winter-killing of the alfalfa.

Field work during the week consisted of preparing land for and planting corn, clipping alfalfa in some of the hog pastures, trimming plots and fields, and plowing under winter rye. The winter rye had made a vigorous growth and was beginning to show a few heads.

The steer wintering experiment was concluded during the week. The gain by periods of the different lots was as follows:

Lot No.	Ration	Gain per head (lbs.) by periods.						Total Gain
		1st	2d	3d	4th	5th	6th	
1.	8 lbs. Alfalfa 4 lbs. Oatstraw	24.4	-28.1	6.9	-15.8	-.4	8.5	-4.5
2.	13 lbs. sorgo fodder	20.3	-25.0	9.6	- 8.5	3.1	23.8	23.3
3.	Kept in pasture and given supplementary feed as needed	-34.3	- 1.8	33.9	-48.6	30.7	89.2	69.1

Ardmore, continued:

The steers in the outside lot made a heavy gain after grass started in the spring.

Fourteen litters of pigs have been weaned, and the pigs in the limited ration lot will be started on experiment next week.

Maximum temperature, 87; minimum, 32; precipitation, .69 inch; there was a light frost the night that the minimum temperature was recorded, but it did no damage.

ARCHER:

During the week the weather was warm and clear until the evening of May 19 when it turned cloudy and cooler. The maximum temperature was 81 degrees and the minimum was 26 degrees. The low temperature, which occurred during the night of May 15, did very little damage. The alfalfa wilted to some extent the next morning but recovered.

Only .10 inch precipitation occurred during the week and this came on two dates. The total precipitation to date for this year is 2.30 inches. This in connection with the dry season last year leaves little reserve moisture for crops.

Spring-seeded crops are in good shape but the winter cereals are in need of moisture. Winter rye on stubble land is burning. Grass growth has come to a standstill.

Work at the station has consisted of making dates-of-seeding, disking and seeding rotation corn plots, seeding corn and alfalfa in the dairy field, cultivating trees, hauling grain for the dairy and hauling manure from the dairy yards.

G. H. Starr, Plant Pathologist of the University of Wyoming, spent Friday afternoon at the station in the interest of seed potato experiments.

AKRON:

The week has been open and favorable for field work and two teams and the tractor have been busy every working day. The unusually warm early spring has brought on a myriad of pig weeds and it is necessary to surface work all open land.

Akron, continued:

Winter wheat has at last started active spring growth, some three weeks later than usual. Stands on the cultural projects appear to be from 30 up to 90 per-cent. Dr. Robertson remarked that he had seen spring stands as poor here but never so late in starting spring growth as this year. The cultural winter wheat plots and a part of the variety plots were rotary hoed during the week to break surface soil crust in order to thwart the emergence of weeds. Barring bad weed infestation and the fact that winter wheat is so badly out of season, the prospects are not bad for an average yield from the cultural plots.

Rotation corn plots were seeded the 17th and the rate and spacing corn experiment the 18th. Seeding was accomplished under optimum conditions for prompt emergence. Third date seeding of corn and the first date seedings of beans and proso were made promptly on the 16th. First and second date seedings of corn have emerged to satisfactory stands, the first date seeding having been made April 20th.

All station roadways have been opened up by means of the duckfoot cultivator. The orchard was sprayed with arsenate of lead. A part of the nursery was hand worked to eliminate weeds. The station's woven wire fencing along the railroad right-of-way is being removed to be set up again on this side of the highway which is to be built along the south side of the station proper.

Messrs. H. B. Osland and John Tolliver were here the fore part of the week looking after the details of starting the summer pasturing pig experiment. Dr. D. W. Robertson and Professor Warren Leonard spent Thursday afternoon and Friday morning at the station. Director F. A. Anderson, of the College Extension force, stopped for a short visit Saturday.

Maximum temperature, 87; minimum, 36; precipitation, trace.

NORTH PLATTE:

Another week of severe weather conditions brings the drought situation for this section to an acute stage. Temperature dipped to 33 degrees and there was light frost on the morning of the 16th. This was followed by mounting temperatures and a maximum of 91 degrees has been recorded on each of the last three days. Wind has been high and persistent.

North Platte, continued:

Small grains, except on fallow, are injured so that recovery will be slight even should rains occur. Pastures are drying badly. Old alfalfa stands on the bench are apparently drawing moisture from the water table and do not show distress. Newer seedings are badly burned.

Most of the corn is germinating well, but cut worms are doing some damage. The stage setting is fine for a good grasshopper crop.
Maximum temperature, 91; minimum, 33; precipitation, none; evaporation, 1.883 inches.

COLBY:

This week has been hot, dry, and windy. Rain threatened several times but only .01 inch fell. Where there is any vegetation growing the soil moisture is being exhausted rapidly. Winter wheat as well as the spring small grains are beginning to wilt and dry up in spots. Considerable damage has been done, and unless rain falls soon the small grain crop will be reduced very materially.

The weather has been ideal for corn, which is all coming up to good stands. All the winter wheat plots on which there was not enough of a stand to warrant leaving for harvest were seeded to barley last Saturday. The barley is up to good stands to-day. On nearly all these plots the ground was clean and would have grown up to weeds.

All the fallow plots and green manure plots were plowed and packed the first of the week, except those which have other set dates for plowing. The May listing for fallow was also done at this time. The fallow plots which had been previously plowed or otherwise worked were gone over to kill the weeds that were starting. The plots, which are to be surface planted to milo and kafir, were gone over with the rotary rod weeder. The ground plowed up very mellow and was wet except on the rye plots. The rye had dried out the surface soil so that it was barely moist.

This was one of the poorest crops of rye ever turned under at this station. The stand was not so thin but the growth was very light and uneven. Many of the stools had not yet begun to shoot up, whereas in some others the first heads were out. It ranged from 2 to 14 inches in height.

The plots have all been lined out preparatory to trimming. The trimming is not much of a problem when lister furrows are run through each alley and along the edge of each roadway in the fall to protect the plots from blowing.

Colby, continued:

Maximum temperature 91; minimum, 30; precipitation, .01 inch. The minimum of 30 was recorded on Monday morning. It was a killing frost which nipped the tips of the leaves of all small grains, killed some thistles, and injured tender garden plants, but no serious injury resulted.

GARDEN CITY:

Field work consisted of cultivation of plots with a rod weeder and plowing under green manure crops. Rye was the lightest and thinnest green manure crop we have plowed under since 1927. It averaged about 15 inches in height and was quite thin. Ground is getting very dry and hard. Wheat is burning and much of it will never produce enough grain to reseed, or either be so short it cannot be harvested.

Soil moisture samples taken May 17 show an average moisture content for the six foot zone, as follows:

Late fall plowed	8.1%.
Early fall plowed	10.8%.
Alternate fallow	17.2%.

Much of the wheat in the country is on continuous-cropped wheat land, onewayed as soon after harvest as farmers could get into the field.

Weather has been quite changeable the past week. A light frost occurred the night of the 15th. Young Russian thistles and tender vegetation were turned black. Temperatures during the day were up in the 70's and 80's. Nights were unusually cool for such high day temperatures.
Maximum temperature, 92; minimum, 33; precipitation, trace.

HAYS:

Dry and warm weather prevails with telling effects on all crops. Wheat on all methods, except on fallow, has been materially damaged by dry weather during the week. Wheat on late plowing is about eight inches high, badly burned and does not look like it can make to exceed five bushels should most favorable weather prevail from now to harvest. Other methods of late preparation look about the same. Wheat on ground early plowed, listed, or onewayed is 12 to 15 inches high, is burning and looks bad but still has possibilities of yields from 10 to 20 bushels if rain comes within a very few days. On fallow ground the wheat is from 20 to 30 inches high and there are still possibilities of 20 to 35 bushels. Barley averages about 8 to 12 inches high and is beginning to head. Oats have made a heavy spreading growth but practically no upright growth and no indications of heading. Both barley and oats are

Hays, continued:

burning severely. Spring wheat is about six inches high and also needs rain badly. The stand of newly seeded bromegrass and alfalfa looks fine in spite of the present unfavorable conditions. Canada field peas are making very little growth but are not burning. Wheat generally throughout this section has been materially damaged by dry weather during the past week.

Work during the week has consisted largely of working fallow plots, plowing some plots and splitting ridges of listed fallows. Also cultivation of alleys, and road work correcting road ditches over the project for drainage.

Maximum temperature, 88; minimum, 33, May 16th, with a light frost which caused no damage.

TUCUMCARI:

The past week has been the most favorable of the spring for field work and good progress has been made in preparation for planting and in planting. Two teams and the tractor have been going steadily and by the close of next week rotation plots should all be planted. Moisture conditions are excellent and a heavy crop of young weeds is being killed by pre-planting work. Early planted cotton and corn were slow to germinate, for soil was cold, and some plots were injured by soil blowing early in the month.

Grapes are in bloom and promise their customary good yield. A considerable number of apples are developing, but other fruits will be very short.

A considerable acreage of rowed alfalfa was seeded this spring and good stands emerged within a week to ten days. With moisture conditions ideal, the young seedlings should make good growth, but weeds threaten to outdistance them.

Maximum temperature, 86; minimum, 47; precipitation, .62 inch; wind velocity, 5.4 miles per hour; evaporation, 1.773 inches.

DALHART:

The weather remained favorable for field work throughout the week. This week saw the completion of most of the spring plowing for row crops. There still remain two days of this work. The ground is still plowing in good shape although the Russian thistles are beginning to reach a fair size for succulent green manure. There is much more weed growth than usual to turn under. The seasonal planting is about normal.

Planting during the week included the two replications of all sorghums on the 16th, the corn rotation plots on the 19th, and the corn varieties, cotton date-of-planting, cotton nursery rows and spacing test, and pinto beans on the 20th. All of this seed went into moist soil and, except for a few places where dry soil might have covered the seed, good germination should be secured. Cotton planted on the 13th is showing emergence.

Considerable time was devoted to hoeing around the vineyard rows and trees, as Russian thistles were making rapid growth.

Maximum temperature, 87; minimum, 44; precipitation, .10 inch; evaporation, 1.976 inches; wind velocity, 6.9 miles per hour.

BIG SPRING:

Weather conditions during the past week have been very favorable for field work. As a result all available teams have been kept in the field the greater part of the time. All plots in the rotation field were disked, and an increase field for sumac was relisted. The cooperative field was harrowed and staked, and the May 15 date variety planting was made of grain and forage sorghums and cotton. Many of the sorghum varieties are now emerging. Some Early Richmond cherries were picked; it is almost impossible to allow them to get ripe and then get any fruit because of the sparrows.

Other work during the week has consisted of preparing for the Feeders' Day Meeting, which was held on May 20. In spite of the fact that the farmers were very busy planting, about 300 farmers and stockmen attended the meeting. At this time the results of the feeding experiments were announced. This test completed a 180-day feeding period with 60 head of Hereford calves divided into four lots of 15 head each. These lots were fed as follows, for the purpose of studying the value of different methods of preparing Dwarf Yellow milo when fed in connection with cottonseed meal and sumac fodder:

Big Spring, continued:

	Lot 1. Threshed whole milo, cottonseed meal, sumac fodder.	Lot 2. Threshed ground milo, cottonseed meal, sumac fodder.	Lot 3. Whole milo heads, cottonseed meal, sumac fodder.	Lot 4. Ground milo heads, cottonseed meal, sumac fodder.
Ave. gain per head(lbs)..	315.6	364.1	314.3	371.2
Cost of feed per 100 lbs. gain.....	$ 4.87	$4.37	$4.17	$3.82

Among those present for the occasion were J. M. Jones, Chief of the Division of Animal Husbandry, Texas Experiment Station; W. L. Stangel, Head of the Animal Husbandry Department of Texas Technological College; A. H. Smith, Extension Animal Husbandryman, of the Texas A. & M. College; and R. E. Dickson, Superintendent of the Spur Station.

Maximum temperature, 86; minimum, 46; precipitation, .03 inch.

LAWTON: (Report for the two weeks ending May 21, 1932.)

Small grains approached maturity with considerable rapidity during the week ending May 14. Wheat and oats were well headed and most of the winter barley was ripe enough for harvest by the 15th. Some of the winter oats varieties were also showing the first ripe heads on that date.

The first cutting of alfalfa in Rotation 142 was made on the 11th. The acre yields of good clean hay were 900 pounds on the three-year old plot and 700 pounds on the two-year old seeding. Several acres of alfalfa on increase fields produced only weeds and worthless grass.

Sorghums planted April 15 in the chinchbug resistance project were thinned to an approximate stand and cultivated May 9. Cotton was planted in the rotation plots, in the variety test and in the spacing test on the 11th under rather questionable moisture conditions.

Several threats of rain during the week resulted only in a trace on two dates. The maximum temperatures varied from 79 to 89, and 51 was the weekly minimum.

Lawton, continued:

Warm fair weather during the week ending May 21 emphasized the acute need of rain by small grains and such row crops as sorghums and cotton.

Winter barley in the variety and in the date of seeding tests was harvested on the 17th to the 21st. The crop attained a height of 28 to 31 inches and was fairly well headed. There was not sufficient moisture to properly fill the ripening grain and the bundles were quite light.

Neither the growth of wheat nor the prospective yield are at all uniform throughout the county this year. A common remark by farmers who are raising considerable wheat is, "Some of it is very good and some of it is extremely poor."

Cotton came up to fairly good stands on the rotation plots, in the variety test, and in the spacing test, but the young seedlings appear to be very weak. The surface soil is very dry and it is doubtful if the young, weak seedlings will survive long without additional moisture. When the April 15 planting in the date test was chopped to a 16-inch stand on May 19, the young plant roots seemed to be embedded in dry dirt. While thinning broomcorn on the same date in the M.C. plots a sufficient number of plants in the listed plots had died to make the stands rather sketchy.

Two year old sweet clover in the date of seeding project was harvested when in full bloom May 17. The stands ranged from 40 to 90 per-cent and the average height was from 24 to 32 inches. Field cured hay yields varied from 1700 to 2900 pounds per acre.

WOODWARD:

A rain of .80 inch on the 15th improved wheat prospects from a possibility of a total failure to a yield of 8 to 15 bushels. Over the country generally the stand is thin and the heads short, and even the best conditions from now on cannot give heavy yields. Wheat on fallow is still in the lead, though that on early-prepared land appears much better than that on late preparation. Small plots on sandy land treated with nitrogenous fertilizers early in the spring appear much better than untreated plots.

Woodward, continued:

There has been far less seed of the sorghums sold at the station than for many years. There also have been fewer farmers in to use the station's fanning mill to clean their own seed. The latter circumstance seems difficult to explain.

There are a good many sour cherries in this part of the country and they are as usual giving a good crop. Many of the plums on the other hand suffered winter killing to such an extent that it was necessary to prune out at least half of the tops. There is prospect of a much heavier grape crop than last year. Apple trees are heavily set with fruit.

The cutleaf elder has been in bloom for a week and will probably continue with a great display of bloom for at least ten days. This is one of the most reliable of the larger blooming shrubs in cases where it may be watered. The virginal variety of mock orange seems to be trying to demonstrate how abundantly a mock orange can bloom. It is one of the newer and one of the best varieties.

Work of the week has consisted of grading roadways, planting grass, cleaning alleys, trimming plots, and planting fields to sowed feed, as well as carpentry work.

Maximum temperature, 90; minimum, 44; precipitation, .80 inch.

PENDLETON:

The station roads were cultivated this week with a spring-tooth harrow, and then followed with a revolving rod to take out all remaining plants. The alleys and all row crops were also cultivated.

Spring wheat is now growing rapidly and has improved in color. Previous to this week the spring wheat has had a yellow color. Winter wheat is beginning to head.

A rain amounting to .60 inch fell on May 21. In some sections of Eastern Oregon this rain was needed as the shallow spots in the fields were showing signs of drought.

Winter range for sheep has dried up. Many bands of sheep have been driven past the station during the week on their way to the summer range in the Blue Mountains.

Black locust trees are in bloom. Alaska garden peas in the varietal trial are in full bloom.

Maximum temperature, 84; minimum, 26; precipitation, .60 inch.

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 28 1932

Not for publication without
prior consent of this division.

REPORT FOR THE WEEK ENDING MAY 28, 1932.

HAVRE:

The past week was cool, fairly dry, with wind velocity over 10 miles per hour on four days. The maximum temperature was 81 on last Saturday with an average maximum for the week of 64. Since the 21st the temperature has not been above 67. The minimum was 30 on the night of the 24th; .45 inch of rain fell on the night of the 21st. Wind velocity was fairly high for the 21st and 24th. On the 22nd and 23rd, following the rain, there was considerable damage in this part of the State from soil movement. This was especially bad on grain that was just coming through the ground where the seed bed was unusually fine. Evaporation was high on the 23rd and 24th but was low on the 25th and 26th.

Growth during the week was rather slow for all crops. Grasses brightened up after the shower of Saturday night. Crested wheatgrass is making fair growth in rows but has been checked by drought in the close drills. Corn emerged during the week with very good stands. The flax plots were seeded but are not yet up.

There are a few cutworms scattered about over the fields but the damage is not serious. The cool weather is holding back their activity.

JUDITH BASIN:

The weather during the week has been unseasonably cool with light frosts on three nights. A light rain of .33 inch, on May 21, freshened vegetation and together with the cool weather has prevented deterioration of grass and alfalfa, which no doubt would have been serious had the weather been warm. Spring grains and winter wheat have made fair progress during the week. All spring grains are beginning to develop a pronounced yellow color which is no doubt due to the low temperatures that have prevailed.

Pale Western cutworms are becoming numerous and severe damage is being done in many localities. The damage done on the station by these insects to date has been slight. Some seeding of spring grain is still being done in central Montana.

Field work has consisted of cultivating and hoeing in the shelter belt, the cultivations of all roadways, and the first cultivation of all plowless fallow. Corn planting was started to-day, May 28.
Maximum temperature, 81; minimum, 27; precipitation, .33 inch.

HUNTLEY:

The last week has been cooler than was the previous one and numerous light showers were received. Minimum temperatures, reaching 31 and 29 degrees on two mornings, were injurious to beans and potatoes in the fields and some of the more tender vegetables in the station gardens.

Field work consisted of lining out roads, plowing fallow and turning under winter rye in the green manure rotations. Land plowed for fallow worked down well but the winter rye plots were dry and remained cloddy after cultivating.

With the exception of spring wheat, small grain crops have seemingly made little progress during the week. Flax appears to be particularly backward in both emergence and growth. Stands of this crop are thin and spotted on most plots and some of them are getting weedy.

Maximum temperature, 85; minimum, 29; precipitation, .25 inch.

SHERIDAN:

Potatoes were planted the first of the week, proso and millet were sown in the variety test, and some Sudan grass was sown. Vine crops and beans were planted in the garden. Rain the evening of the 25th followed by cold weather for the remainder of the week delayed field work to some extent. Rye headed the first of the week, and that on the green manure plots was plowed under. Growth of rye was the heaviest for several years. Grain and grass generally made a good growth during the week. Light frost occurred on the mornings of the 26th and 27th, but apparently nothing was injured on the station.

Maximum temperature, 79; minimum, 30; precipitation, .64 inch.

DICKINSON:

A rain of .87 inch the night of May 22 greatly improved the crop outlook. A strong southeast wind on the previous three days had dried out the soil so that crops were beginning to show effects of dry weather. On Sunday some injury of crops resulted from soil blowing.

A heavy frost with a minimum temperature of 27 degrees on the morning of May 27 injured corn and potatoes and tender garden plants, but apparently did not injure small grain. Fruit was injured to some extent, but apparently most varieties of plum and apples escaped with only slight injury.

Dickinson, continued:

Fallow and green manure plots on the rotations were plowed May 25 and 26. The rye was about two feet high and had a thick stand and was beginning to head. Sweet clover was six to eight inches high, but only a two per cent stand survived the unfavorable summer of 1931.

Grasshoppers and cutworms appear to be present in normal numbers only, so that it seems probable that no serious damage to crops is likely to result on the station unless extremely dry weather follows.

The Western North Dakota Livestock Association, meeting in Dickinson to-day, May 28, is attended by a large number of ranchers from western North Dakota, several of whom visited the station, they being especially interested in the forage and feed-crop work.

Harold Tower, Agent, Division of Forage Crops and Diseases, Moccasin, Montana; and Glenn M. Smith, Junior Agronomist, Division of Cereal Crops and Diseases, visited the station during the week.

Maximum temperature, 88; minimum, 27; precipitation, 1.03 inches; precipitation, May 1 to 28, 1.44 inches.

MANDAN:

Horticulture.

Recent rains have been very beneficial to all horticultural plantings. Coming just after the blooming period, the rain could not have been timed to better advantage.

Most fruits show a heavy set of fruit. Exceptions are a few apples and crabs, which bloomed but light, and a few Japanese hybrid plums, where the blossoms dropped without setting fruit.

Softwood cuttings of different species are now being made. The first hand hoeing of the orchards was started on May 28.

Arboriculture.

Thirty-one pounds of American elm seed have been picked and planted during the past week.

Mandan, continued:

Arboriculture, continued.

Conifer seed beds of Black Hills and Colorado Blue spruce, Scotch and Western Yellow pine have been made. A few beds have also been made of Limber pine, Pinyon pine, Engelmann spruce, Balsam fir, Lodgepole pine, Siberian larch, Norway spruce, and Scotch pine. These latter species were planted for the purpose of obtaining seedlings for testing blocks and to obtain data on origin of seed.

The high winds of May 21 and 22 caused considerable damage to young growth on a large number of tree species. Small seedlings were also badly damaged. The rains of this week will greatly help all types of tree and seedling growth.

Cooperative Grazing Experiment.

Native vegetation is making a rapid growth at the present time, and is in better condition for grazing than for some years past. Bromegrass is also growth rapidly.

The steers appear to be doing well on their pasture.

Agronomy.

A good rain fell during the afternoon and night of the 25th. The rain practically all soaked into the ground.

Plots were trimmed early in the week, and land has been prepared for seeding millets and sorgos.

Small grains are now making a good growth and are ahead of the weeds. Corn is just starting to come up.

Nearly an inch of snow fell along with the rain on the morning of the 26th. It was very wet and heavy.

Frost threatened on three nights, but so far no damage has been done to field crops.

Maximum temperature, 85; minimum,32;precipitation, 1.74 inches.

BELLE FOURCHE:

A strong, hot wind on May 22 ushered in a heavy rain late in the afternoon, which was of a torrential nature at first but continued as a light rain during the night and part of the following day. A total of 1.20 inches precipitation was received, but a great deal of run-off occurred, and some damage was done to a number of plots through soil washing and flooding. Cool, wet weather prevailed during the remainder of the week, precipitation being recorded every day. An intermittent light rain of nearly two days duration commenced May 24, and practically all of the .31 inch precipitation received was absorbed by the soil. A light frost occurred the morning of May 17, but only the more tender garden crops were injured.

The ground has been too wet throughout the week to permit work in the field, and the cool weather has retarded plant growth. Some additional tillering of small grain has taken place and corn is slowly coming up.

Maximum temperature, 90; minimum, 31; precipitation, 2.02 inches.

ARDMORE:

The week was generally cloudy and threatening, and heavy rains occurred at many points in this section. Only a few very light showers occurred at the field station.

Outside work during the week consisted of planting corn and potatoes, plowing summer fallow plots, cultivating roads, alleys and trees, and preparing ground for sorgo.

All crops made a seasonable growth. Grain crops have tillered freely. The winter wheat is forming straw.

Alfalfa and grass are commencing to show signs of getting dry, and rain will be required within the next week or the growth will be checked.

The pigs in the limited ration experiment were weighed and put on pasture on May 27.

Maximum temperature, 88; minimum, 38; precipitation, .25 inch.

ARCHER:

The first day of the week was marked by high, warm winds with clouds of dust. Since then it has been cool, with frost the night of May 25. During May 26 snow fell most of the day. Since then it has been rainy and foggy.

Before the precipitation and cool weather the grasses and alfalfa were burning. The soil was becoming too dry for seeding except with the lister. Weeds were taking full advantage of this condition.

Work at the station consisted of hauling manure, cultivating trees, seeding the garden beans, and squash, and seeding the varieties of peas, beans, and corn in the experimental field. On this date May 28, the final work on the seed treatment of potatoes is being done. During the week two dairy fields were listed to corn.

Maximum temperature, 84; minimum, 32; precipitation, .61 inch.

AKRON:

The week has been cloudy, showery, and cool. There has been some precipitation each day since Wednesday. This is very favorable weather for the spring and fall seeded small grains which are beginning to show appreciably thicker over the plots.

Two storms formed over or in the immediate vicinity of the station, each accompanied by fine hail, which beat down and lacerated growing vegetation.

Necessary field cultivations were completed Monday and Tuesday before the present wet spell; also the variety corn experiment was seeded. The bulk of the week was devoted to odd jobs about the station that were awaiting such a slack in field operations. Thursday afternoon was spent in the cereal small grain nursery.

Rotation and rate-and-spacing corn seeded May 17 and 18 has emerged to very satisfactory stands. Beans seeded May 16 are just emerging.

The present wet, cool weather greatly enhances the agricultural outlook for this region, and the enforced time away from the field is not regretted.

Maximum temperature, 85; minimum, 40; precipitation, .76 inch.

NORTH PLATTE:

Due to the hot, dry weather of the past week or so spring grains have suffered very severely. Many of the plots were in a very bad state at the beginning of the past week. A rain of .42 inch Tuesday night was of considerable benefit for the time being. The latter part of the week has been quite cool and cloudy but no further rain of any consequence has fallen.

The annual feeders' day which was held the 26th was attended by about 300 people.

Chancellor E. A. Burnett, of the University of Nebraska, was a station visitor Friday.

Maximum temperature, 92; minimum, 38; precipitation, .50 inch.

COLBY:

The dry and windy spell which prevailed during most of the month was broken by showers during the last four days. Seldom have showers been more timely. The winter wheat and spring small grains were rapidly approaching the point beyond which they could not be revived by rains. As it is the yields on many fields will be much smaller than would have been the case had the rains come a few days earlier. The showers have been accompanied by cool temperatures.

The sorghum crops were planted the first of the week, as were also the Pinto beans. On most plots corn came up to good stands, but on some of the listed plots it has been thinned considerably by ground squirrels. These animals seem to be more numerous and destructive than usual.

The plots have all been trimmed. The work of cleaning up the roadways was well under way when stopped by the rains.

E. F. Chilcott, of the Woodward Station, and A. L. Hallsted, of the Hays Station, visited this station on Wednesday.

Maximum temperature, 88; minimum, 43; precipitation, 1.23 inches.

GARDEN CITY:

Field work the past week consisted of getting row-crop land ready for planting. The rod weeder, spring-tooth cultivator and tandem disk were used in preparing the ground. Ground is very loose and somewhat dry for planting at this time. All row crops will be planted with the surface planter equipped with furrow openers this spring on account of the loose seedbed and dry condition. However, some seed beds will be planted with the lister depending on the method called for.

Roadways were worked with a tandem disk the last few days. They had been seeded to wheat to stop soil blowing and washing. As much of the wheat was left in the middle of the roadway as was possible to prevent washing.

Wheat on continuous methods and following a row crop is badly burnt and very short. Some plots will probably not be harvested. The wheat is too short to cut and heads are not forming. Wheat on methods of fallow is from 24 to 30 inches high is heading well and not suffering from lack of moisture.

E. F. Chilcott and A. L. Hallsted were station visitors the 25th.

Maximum temperature, 88; minimum, 47; precipitation, in three showers, total, .65 inch. Nights have been unusually cool.

HAYS:

Due to good rains during the week, which broke a drought that was rapidly becoming serious to small grain crops in general, all crops are looking much more promising this week end. However, the wheat on late and poorly-prepared plots was too badly damaged to make even fair recovery, while the wheat on most of the early-prepared plots will make fair recovery with prospect of fair to good yields. Wheat on fallow was damaged very little and has possibilities of making heavy yields.

Winter wheat is about 85 per cent headed, barley 75 per cent, and spring wheat and oats are just beginning to head.

The ground was too wet for field work most of the week. A small run of soil moisture samples was taken just before the drought was broken. The samples were being extracted with considerable difficulty on account of the extremely dry soil on certain plots. Needless to say the crew was glad it rained, which prevented a continuation of the work. A little tillage work and general repairs, including the digging and walling of a pit for a re-setting of wagon scales, largely made up the week's program.

Hays, continued:

E. F. Chilcott was a visitor at the station Monday and part of Tuesday forenoon. Dean Call and Prof. Throckmorton visited the station this afternoon, May 28.

Maximum temperature, 88; minimum, 52; precipitation, 2.13 inches.

TUCUMCARI:

Field work progressed rapidly the past week, with teams and tractor operating full time. Completion of preparation for planting and planting of balance of rotation plots, 117 in number, were finished. All increase land was worked with disk, spring-tooth harrow, or field cultivator, while orchard, vineyard, and all tree rows were harrowed or cultivated. Short periods of high wind have dried surface soil rapidly, but by using disk furrow openers on planter it is thought practically everything planted will emerge to stand. If cloudy weather to-day results in a shower emergence of all crops will be improved, for many are just at emergence stage.

Farmers are planting as fast as possible, but fields in most cases are weedy. Conditions for listing are ideal, but surface soil on plowed land is drying fast.

Wheat which survived the adverse spring conditions, on plains portion of the county, was greatly aided by good rains in early May, but farmers report crop prospects very poor, for heads are very short and very little stooling occurred. The majority of the wheat which still survives will produce not to exceed 6 to 8 bushels to the acre, an unprofitable yield when prices hover around $.35. Station wheat will perhaps average about 10 bushels, indicating the benefit of early preparation before seeding.

Maximum temperature, 89; minimum, 49; precipitation, none; evaporation, 2.443 inches; wind velocity, 6.7 miles per hour.

DALHART:

The weather remained favorable for field operations during the week. This permitted the completion of the necessary cultural and planting operations for this time of the year. There still remain a few scattering weeds which will be hoed out.

Dalhart, continued:

The surface soil has dried out so that the nursery planting done during the week can not emerge until it rains. This planting consisted of soybean nursery of 60 varieties, in duplicate, and a sorghum smut nursery of 89 rows. Other planting during the week consisted of soybean and peanut rotation plots. It is felt that these rotation plots can quite possibly emerge to stands. Unless rain comes before the next planting dates, this next week, emergence is not expected.

Cotton and corn varieties planted last week have emerged to thick stands. The surface-planted corn rotation plots are up to thick stands while some of the listed rows have skips. Beans are emerging. The May 16 date-of-planting of the sorghum varieties is up to thick stands, all varieties showing excellent emergence.

Winter wheat on fallow continues to promise a good yield, which is also true for rye and oats. These crops and barley on continuously cropped ground are to all practical purposes a complete failure at this time.

H. A. Rodenhiser, Division of Cereal Crops and Diseases, spent the last two days of the week on the station planting the sorghum-smut nursery.

Maximum temperature, 90; minimum, 48; precipitation, trace; evaporation, 2.330 inches; wind velocity, 7.6 miles per hour.

BIG SPRING:

Two rains during the past week, totaling 1.66 inches, have made the soil so wet that planting or other phases of field work have been possible during only three days of the week. Weeds, however, have not been delayed, for they are making a good showing on unplanted land.

Winter wheat plots are now starting to ripen and if they escape hail damage should make the best yields of any year of the past ten. All plots present a very healthy color and all have developed well-filled heads.

Cotton varieties and the cotton spacing block were planted during the week as were also the cotton cooperative series consisting of 47 single-row varieties. Cowpea, soybean and peanut varieties were also planted. The rotation field was staked off, so that planting there can be started just as soon as the soil is dry enough. Other work has consisted of grinding feed and moving scales.

Maximum temperature, 86; minimum, 56; precipitation, 1.66 inches.

LAWTON:

A week of unsettled weather resulted in precipitation of a trace on the 24th, .04 inch on the 25th and dashing rains and showers on the 28th totaling 1.02 inches. This is the first rain of any consequence since April 27 to 29, and its value to small grains that are so near to maturity and to young row crops of cotton, and sorghums is timely and important. Rains in the northern part of the county on May 28 were torrential and some destructive hail was reported. The maximum and the minimum temperatures for the week were 91 and 52, respectively.

Five varieties of wheat, Nebraska 28, Early Blackhull, Prelude x Kanred, and Kanred x Hard Federation, Nos. 2671 and 2673, and one variety of winter oats were harvested May 28. The early-maturing varieties of wheat suffered from drought to the extent that plants were dead or nearly so before the grain was fully hardened. The moisture received on the 28th will no doubt relieve this condition to a great extent in the remaining varieties. Such a thin stand of winter oats survived that maturity appears about normal in spite of the shortage of May moisture.

Austrian winter peas were pretty well dried up and the relatively small set of seed was still immature when the crop was harvested on May 27.

Thinning of practically all sorghums, cotton chopping, harvest of small grains and cultivation of row crops now demand immediate attention.

WOODWARD:

Work over the past week has consisted of planting the larger fields to sorghums, in thinning alleys, hoeing weeds, and miscellaneous construction and repair work.

A light rain of .37 inch was received on the 23rd, which was refreshing to the wheat, especially as succeeding temperatures for several days were low.

A trip was made during the week from Woodward to Hays, Colby, and Garden City and back to Woodward. On the whole trip not one heavy stand of wheat was observed. It had all been thinned by freezing and in some cases through failure to come up through crusted soil last fall. Little of the wheat over the whole distance traveled can make over 12 bushels and much of it cannot make over six. It is rather remarkable that over a trip so long more exceptions were not observed in the poor condition. The only exceptions were on experiment stations, on fallow.

Woodward, continued:

For forty or fifty miles along the Pawnee Valley in Kansas wheat seemed better than in any other section, but even here the stand is thin. While there seems no exception to thin stands except on fallow, there is a remarkable difference in date of maturity from one neighborhood to another. There is often a difference of ten days within a few miles, probably from the effect of local showers. Considerable barley and oats had been planted where wheat had blown out, and this will make low yields in most cases, though yield is dependent on weather conditions from now until harvest time.

Maximum temperature, 89; minimum, 50; precipitation, .40 inch.

PENDLETON:

The past week has been cloudy and cool. Frost occurred on two mornings during the week, with a minimum temperature of 27 degrees. This frost did not injure grain crops; a few beans in the rotation trials were injured.

This week the fallow plots in the rotation and tillage trials were gone over with a revolving rod weeder. The majority of the large weeds have been hoed out of the rotation and tillage plots.

Plans for a combination barn and seedroom are being prepared by an architect. Construction on this building will start soon.

Maximum temperature, 69; minimum, 27; precipitation, .20 inch.

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