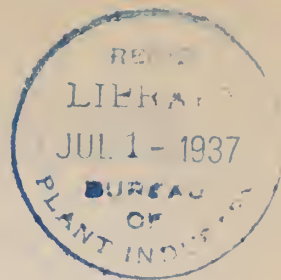


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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

JUN - 5 1937

REPORT FOR THE WEEK ENDING JUNE 5, 1937.

HAVRE:

The weather was somewhat cooler during the past week, but with only 0.04 inch of precipitation. Local reports of beneficial rainfall for the most part lacked significance, since the amounts received could not be of much value to an extremely dry soil. Strong winds prevailed on several occasions, with an especially hard blow on Wednesday night. Conditions in general are becoming worse, and nothing short of a miracle involving ample precipitation and ideal growing conditions from now on can remedy the situation.

Corn is germinating slowly, with a very uneven stand in prospect. Rocks were hauled from various parts of the experimental field. Cultivation of alleys is in progress. Crested wheatgrass in more favored locations has headed out, otherwise the stands have dried up.

A seed field of sub-irrigated Ladak alfalfa was clipped in order that the second cutting might produce seed. Numbers of dead trees were pulled and hauled from various shelterbelt plantings, with every indication that further removal may be necessary next year.

Maximum temperature, 87°; minimum, 33°; precipitation, 0.04 inch.

JUDITH BASIN:

Although the week has brought numerous flurries of rain and occasional hail, conditions still remain acute and the need of the area is a good rain. On the night of the 3rd a severe dust storm hit the local area and caused added injury to the crops and fields. Light showers are making the grass and grain show up somewhat better than heretofore. Depleted pastures present a serious feed problem. Field work for the week has been mainly hoeing shelterbelts, removing rocks from rotation plots, and repair work on station buildings.

Maximum temperature, 81°; minimum, 32°; precipitation, 0.09 inch.

HUNTLEY:

The last week has been considerably cooler than the previous one, and all crops seem to have responded to the more favorable condition. A rain of 0.46 inch occurred during the afternoon and night of June 3, falling over a period of about 10 hours. This is the greatest amount of precipitation in one fall that has been measured at this station since July 11, 1936. This shower should bring up corn and other late-sown crops which were planted in dry soil and should promote new growth in other crops, which have been nearly at a standstill for lack of moisture.

Field work has consisted of cultivating roads and alleys; planting sorgo, Sudan grass, soybeans, and millet; and plowing fallow and winter rye for green manure. The soil is very dry and turns up in a very cloddy condition.

Maximum temperature, 83°; minimum, 38°; precipitation, 0.50 inch.

SHERIDAN:

Crop conditions here were materially changed over the week. Good rains beginning on the evening of the 29th and extending over the 30th, and rain and snow the night of the 3rd, with the rain continuing over the most of the 4th, supplied much needed moisture, which was absorbed by the soil with practically no runoff.

The few willows remaining in the shelterbelt and some spruce in the 1922 planting that were dead were pulled, and the remainder of the conifer replacements were planted. With every willow that was pulled in the 4 by 8 block planted in 1917 a large root was found running over to where there were one or two dead spruce in the row 20 feet from it. It was intended only to pull the dead willows, but after this condition was found, the live ones were pulled also.

Millet, Sudan grass, and varieties of sorgo in the late forage crop test; varieties of grain sorghum; and sorgo in the rotations were sown in the two days available for field work, and some land for field seedings was partially prepared for seeding. A good stand of rye about three feet in height was plowed under on the green manure plots. Weeds are making a heavy growth.

Maximum temperature, 70°; minimum, 32° (no frost or damage to tender vegetation); precipitation, 2.93 inches.

DICKINSON:

A rain of 1.06 inches on May 30 temporarily relieved the drought. Crops freshened up, and stands of corn and small grains are thickening as some seed had failed to germinate. Considerable plowing was done in the locality for corn following the rain. A good deal of millet has also been seeded, some of this on fields where small grains had been destroyed by blowing.

Alfalfa and sweetclover were planted on the rotations on June 1. Other seedings during the week included grass varieties in the forage trials, an increase block of crested wheatgrass, pasture mixtures, millet, sorgo, and Sudan grass. A part of the Soil Conservation grass nursery was planted before the rain. Tomatoes and cabbages were set in the garden, and some additional seedings were made in the garden. Corn on the rotations was cultivated to aid in cutworm control, even though all of the corn had not yet emerged. Rye in the green manure rotations was plowed under. The stand averaged about 25 percent, and plants were heading at about a foot high.

The weather remained fair until about the middle of the afternoon on Thursday (June 3) when the wind rose and a severe dust storm followed. The wind shifted to the north Thursday night, and a slow rain continued all day Friday and until 6 p.m. Saturday when 2.30 inches had fallen.

Maximum temperature, 83°; minimum, 38°; precipitation for the week to 6 p.m. Saturday, 3.36 inches.

MANDAN:

Agronomy - The best news of the past week is the good rainfall which started slowly on the night of the 29th, and continued all day the 30th. The total for this period was 1.10 inches. Rain started again during the night of June 3 and continued all day the 4th, and was still raining on the morning of the 5th. The rainfall during this period was 0.40 inch on the morning of the 4th and 1.18 inches on the morning of the 5th. The wind was from the north and averaged 23.7 miles per hour during the 24 hours. So far there has been little run-off.

Part of the south field was reseeded to oats. Frost and cutworms had cleaned out a good part of the field. Cutworms are the worst they have ever been on the station. Corn is up to a good stand but may be taken by the worms. Grasshoppers are also very thick.

The warmest day of the year to date was on the 29th. Maximum temperature, 93°; minimum, 41°; precipitation, 2.68 inches.

Cooperative Grazing Experiment - Pastures should be greatly improved with the rains of the past week. Blue grama grass already shows renewed life. Weeds are bad in the pastures.

The steers were weighed at the end of May, and showed good gains for the period. The following gains were obtained:

<u>Pasture</u> Acres	<u>Steers</u> Number	<u>Gain per head (5 days)</u> Pounds
100	10	37.5
70	10	32.0
Rotation, 70	14	33.9
Crested wheat, 7	4	42.5
Mixed, 12.5	6	45.8

F. L. Kirby, Regional Supervisor for the Range Program, Lincoln, Nebr., K. W. Taylor, in charge of Range Inspection for North Dakota, and F. E. Cobb, State Director, Prairie States Forestry Project, visited the station during the week.

Horticulture - The second spraying of the season was finished on June 3. Rains following the application of the spray may make it less effective, but the rains were nevertheless very welcome as they will save many trees from dying. Budded stock has been staked and tied, and hoeing has been started.

Winter injury notes are now being taken. Native varieties of fruits are in fair to good condition, but most small fruits, Japanese plum hybrids, and apples and crabs show severe injury. Apples and crabs show severe sunscald damage on the south and southwest sides of the trees, and a large percentage will eventually die.

Planting of vegetables in the field, consisting mostly of breeding projects, was continued during the week. Sweetcorn and melon selections not planted in 1936 on account of adverse growing conditions were included. Some 4,000 tomato seedlings still remain to be set out, and after the generous moisture received during the week, it is hoped a good crop of these will be realized, and the project may be cleared off of station activities, at least along the lines heretofore pursued.

Work on the grounds, consisting of care of lawns, hoeing of groups and cleaning of roads, was continued. The annual June pruning still remains to be done.

Spirea Vanhoutte, Viburnums in variety, Loniceras and Crataegus, are at present in bloom about the station grounds.

Arboriculture - Hoeing in the nursery has been carried on during the favorable days of the week. The caragana nursery has been replanted and part of the American elm. A good stand had emerged on these areas, but the seedlings were cut off by moving soil particles during the high wind of May 22. The precipitation for the week will greatly benefit all types of tree growth that is surviving at this time.

ARCHER:

The weather during the week ending June 5 was cold and wet. The last two days were windy and snow fell. At 7:30 a.m. the morning of June 4 the temperature dropped to 30°, and the morning of June 5 a coat of frost was noticeable on all tilled soil, however, it appears that no serious damage will result. The total precipitation for the week was 2.04 inches. Of this amount 0.34 inch occurred in the form of snow which fell during June 4 and early June 5. At this writing splotches of snow dot the landscape. These splotches are the result of high winds drifting the snow June 4. The total precipitation for May was 2.61 inches. At this time the soil is saturated to a considerable depth. Fair, warm weather is needed.

Tomato, cabbage, cauliflower, and pepper plants were set out June 3. When the snow storm started at the station the morning of June 4 these plants were all covered, and it is hoped no damage occurred.

Due to the continued wet weather, only two hours of field work, except the setting out of plants, was possible.

Maximum temperature, 69°; minimum, 30°; precipitation, 2.04 inches.

NORTH PLATTE:

Rain on two days during the week totaled over an inch of precipitation. Cool and cloudy weather during the week permitted all the moisture to soak into the soil, and there was very little run-off. Snow was reported in the west end of the State on Friday. High winds of approximately 30 miles per hour Saturday afternoon dried the surface of the ground and caused some soil blowing on unprotected fields.

On a trip through the western part of the State, very little winter wheat was observed. Most of the winter wheat land has been reseeded to spring wheat or barley or left for corn. An abnormally large acreage has been put into corn or fallowed. In normal years most all of the wheat produced in the State comes from the western half; this year the eastern part of the State has an increased acreage and will grow the wheat for the State.

The cutting of the first crop of alfalfa was started this week, but the wet weather has delayed stacking.

The rye green manure plots were plowed during the week. The growth of rye was light, and the coverage was mostly weeds. Plowing of the summer tilled plots is in progress. The forage sorghum plots were seeded this week. The sorghums in the first seeding variety plots are emerging, but a poor stand may result from the unfavorable growing weather for sorghums.

The oats and barley on cropped land are heading, and if harvested, a mower will probably have to be used. The spring wheat in the variety plots is heading at a height of about 6 inches. The grain on the fallow plots looks good and will make fair yields.

Maximum temperature, 76°; minimum, 40°; precipitation, 1.08 inches.

AKRON:

May passed with but 1.26 inches of precipitation. This was preceded by only 0.33 inch in April, and constitutes the lowest April-May precipitation recorded at this station during the past 30 years. May produced enough rains, however, there being observable precipitation on 22 of the 31 days. The average yearly precipitation up to June 1 is 6.59 inches. This year the amount for this period is only 2.76 inches.

The past week was one of very variable weather. Last Saturday opened with a moderate south to southeast wind which maintained throughout the day. By about 2:00 p.m. the sky became hazy, and by 5:00 p.m. visibility was cut to about a quarter of a mile by dust. Friday opened with low hanging clouds and a very cold north wind. Started misting about 10:00 a.m., gradually turning to a drizzle. This turned to snow about 3:00 p.m., constituting a mild blizzard for a short time. Temperature in unheated houses descended to 60°, necessitating the rekindling of fires left dead the previous two weeks. Measurable precipitation was recorded on four separate days, all of a drizzling character, with a maximum fall of 0.47 inch.

Native sod is still in a very low state of vitality and is weedy, though apparently not as bad as during the two previous springs. Predominating weeds this spring are Cryptantha, pepper grass, and buckthorn plantain. Native sod is in a very low state of vigor on the building site where it has never been grazed, only clipped with a mower. This grave plight of the native grasses must be due partly to some other factor of climate than rainfall. Aside from a faulty distribution of the rainfall, the next most outstanding change in climate has been the unusually high summer temperatures.

The recent rainfall and accompanying cool weather has revived the injured winter wheat and has maintained uninjured winter wheat and the early spring seeded small grains in a progressive growing condition. Crops look fully average at this season of the year, except very short in stature, and thin on the ground from faulty stooling, the later especially noticeable among the spring seeded grains.

Rotation fallow plots were plowed, and otherwise worked, early in the week. Tractor and hoes were busy all week fighting weeds which have been normally trying to occupy cropped and open land. Thistles have gotten away to a nice start and may be troublesome and cut yields on plots they occupy, notably the early spring seeded small grains.

Friday about 50 families, 150 people, of the Washington County Resettlement clientele, came to the station for an educational picnic. This brought to the station several prominent regional officials of the Resettlement Administration. This gathering was arranged by Harvey Burns, local County Administrator,

for the Resettlement Administration. D. W. Robertson, of the State College, brought Jim Bruner, junior student at that institution, on Thursday to be stationed here during the summer to aid with the cereal experiments.

Maximum temperature, 75°; minimum, 33°; precipitation, 0.93 inch.

COLBY:

The weather has been very varied this week. It has rained at least once every day but one, and nearly every day it has been windy with some soil blowing. Until yesterday it was fairly warm, but yesterday afternoon it turned cold and has been unseasonably cold since. The rains have been general but have varied widely in amount over this county. Where it rains the most, the bare fields blow the most the following day.

All crops that were not considerably burned before the rains came are making good progress. The oats are headed, and barley and winter wheat are beginning to head. All the small grains will be short. The corn planted before the rains is coming through very slowly. It is doubtful if a good stand will be secured on most of the listed plots. The weeds in the pastures have greened up. Most of the grass, however, is not showing signs of being alive. The moisture has penetrated down about 4 inches.

Maximum temperature, 78°; minimum, 41°; precipitation, 1.38 inches; precipitation for May, 2.12 inches; precipitation, January - May, 5.10 inches; 50-year average, 6.17 inches.

HAYS:

Rain and cooler weather during the week has been favorable for the development of small grain. Winter wheat varies from the milk to soft dough stage; oats and barley are in the milk stage; spring wheat is all about headed and in the bloom stage.

The grain on cropped land is thin and so short it will be exceedingly difficult if not impossible to harvest some of it. In addition to the short straw, the weeds are thick in the spring grain and as tall as the grain. There seems little chance for these crops. On fallow the spring grains are tall enough, but in places the weeds are as tall as the grain. The weeds in the winter wheat are neither so thick nor so large, and where there is sufficient wheat to harvest, it is likely the weeds will not cause trouble.

Corn was planted June 4. Row sorghum plots and three borders were planted June 5.

Maximum temperature, 84°; minimum, 47°; precipitation, 1.23 inches.

GARDEN CITY:

Moisture conditions are much better, since 2.12 inches of precipitation fell this week. One rain totaled 1.71 inches, which is the largest single rain since September 1933. This rain was received on the last day of May, making a total of 2.79 inches for the month, while the normal is 2.65 inches. Only one dust storm was received this week and that occurred on Friday. Considerable of the surrounding land is too wet to work, and yet this "black duster" rolled in from the northwest bringing plenty of dust and a sudden drop in temperature.

Row crop planting will begin as soon as the soil surface becomes dry enough to work. The ends of the wheat plots were trimmed. The wheat is recovering some since the rains, and there will probably be a little to harvest.

Maximum temperature, 81°; minimum, 45°; precipitation, 2.12 inches.

TUCUMCARI:

Following the heavy precipitation of last week, only 1.34 inches was received this week, and it is possible field work may be resumed Monday. During the 10-day period May 25 - June 3 there was received 6.14 inches precipitation, or 0.01 inch more than in the year 1934. In spite of continued hard rains, washing on the station was not serious, and it is possible that all plantings made before the rains will be saved, although narrow, shallow gullies across plots may have washed away some seeds.

In this locality nearly all row plantings were destroyed and will be replanted as soon as possible. Ranges are in excellent condition, and wheat prospects are encouraging. Estimates, however, vary greatly as to how late, damaged, weakened wheat will yield after prolonged injury.

Miscellaneous work and hoeing weeds comprised the week's labors.

Maximum temperature, 82°; minimum, 43°.

DALHART:

While only 0.99 inch of precipitation was received during the week, the ground was wet from the preceding week so that field work was impossible except on Tuesday and Saturday morning. Except for a few plots of peanuts, pinto beans, and soybeans, which were planted this morning, no planting has been done. Plans are again made for planting during the coming week. There now is ample moisture for germination, and seedbeds can be prepared, unless additional rains come, as fast as planting can be done. Lister furrows are still wet and slick from the recent rains.

What is reputed to have been the worst flood in the history of this section was on Tuesday of this week, and the waters have not yet subsided. This was caused by cloudbursts in the upstream watershed of the Rita Blanca Canyon and of its tributary the Carriso. The crest of the floodwaters reached the lake at about 7:30 a.m. Soon thereafter the entire crest of the dam was a raging spillway. The dam had given away by 9 o'clock, and by 10 o'clock the railway bridge had washed out. Water has continued since, though in greatly diminished amounts. About noon today a temporary bridge has been placed which permits travel to town. Electric service and telephone service is still discontinued. One trip was made to town during the week via ferry which was operated by the railroad.

Maximum temperature, 80°; minimum, 40°; precipitation, 0.99 inch.

Friday evening another severe dust and sand storm raged for three hours.

BIG SPRING:

Another rain totaling 0.97 inch was received the night of June 3. This temporarily halted replanting, which has been in progress during the past week. It is not probable that this rain washed in enough soil to necessitate a third planting of cotton.

Wheat throughout the county is maturing rapidly, and harvesting will probably start next week if weather permits. It is estimated that yields will vary from 5 to 10 bushels per acre. Station wheat plots will be harvested during the next few days. Straw is short, and yields will vary from failures to about 10 bushels per acre.

Station planters have been kept busy every day when conditions would permit. All cotton was replanted; other planting consisted of milo in the rotations, milo spacing, June 1 date of grain and forage sorghums, and sorghum nursery. The milo spacing and sorghum varieties are now emerging.

Maximum temperature, 89°; minimum, 57°; precipitation, 0.97 inch.

LAWTON:

Rains in various parts of the State produced flood water in the South Canadian river, but southwestern Oklahoma swung binders into the small grain harvest in full force and with out interruption. Combining will begin about the 8th or 10th. Farmers are quite jubilant over the unusually good yields of wheat that obtain on the very large acreage. Local prices are quoted at 90 to 95 cents per bushel at present.

Field activities on the station progressed steadily with a large force employed. Harvesting and sorghum thinning were completed, with the exception of a few remnants.

Cotton fields throughout this territory are in only fair condition. Much replanting has been necessary, and many of the fields are quite weedy. Grasshoppers continue to increase their damage to cotton, and poison bait is being used extensively.

Sorghums made a very rapid growth during the past week, and corn is now too large to permit additional cultivations. Wire worms have damaged sorghums in a few places.

The weekly range in maximum temperatures and minimum temperatures was 79 to 89 and 56 to 67 respectively. Precipitation for the week was 0.11 inch.

WOODWARD:

Since May 24th 2.88 inches precipitation has been received. This was divided into four showers scattered over eleven days. All but the last shower of 0.89 inch came slowly, so there was little run-off. The last one came rapidly after surface soil was well saturated and caused some washing. There is much diversity of opinion as to how much benefit rain was to the wheat. There is, in fact, much difference in the benefit from field to field. Much of it was too badly drought injured to be benefited. In other cases it will now fill well, where otherwise it would have had only shriveled kernels.

Land is now in most excellent condition for planting row crops, and there will be intensive activity in planting over the coming week if rain permits. Rains coming the last of May have crowded sorghum planting into the early wheat harvest.

A great many plantings of grass were made by the Forage division just previous to rains, and these now have an excellent chance to come up to good stands. The lateness of planting and the excessive number of grasshoppers are, of course, adverse influences.

Over this section generally grasshoppers are worse than they have been in years. On the station except in scattered spots they are not bad. This is due probably to the more thorough tillage practiced on the station. The county is distributing poisoned bran, the mixing being done at the station. The cool damp weather may be more effective than the poison in controlling them.

The appearance of the landscape generally is remarkably fresh. Trees are rich greens, and there are many varieties of wild flowers. One of greatest value when transplanted to the flower garden is the butterfly weed (*Asclepias tuberosa*). It is perennial and has orange blossoms in terminal umbels. They last a long time and do not clash with other flowers. Another plant that is of great value for landscape work is the running shadblow (*Amelanchier stolonifera*). This grows to only 3 feet, is covered with flowers in late April, and loaded with green bright red, and dark red berries in June. It is one of the best low hedge plants and is hardy throughout the Plains.

Station work for the week consisted largely of planting grass, sprouting grape vines, and running concrete floor in machine shed. Also, considerable repairing of machinery was accomplished.

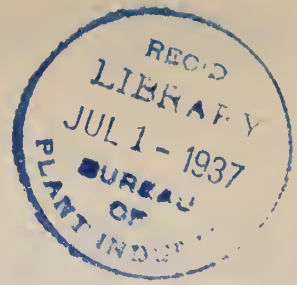
Maximum temperature, 87°; minimum, 52°; precipitation, 2.23 inches.

PENDLETON:

The weather the past week has been warm and very dry. A north wind has blown most of the week, which has taken a great amount of moisture out of the soil and green wheat. The velocity of the wind was not high at any time, but the warm days and low humidity combined to make the plants appear wilted. The effect of the continued winds, low humidity, and temperature is very apparent on the shallow soils and in the lower rainfall areas. A good rain very soon is needed to insure a good crop in this area. On the station the spring sown oats on wheat or corn land probably will not head without rain. Wheat after fallow will produce a fair crop on the station without rain. Wheat after alfalfa or sweetclover is badly burned. Grasses and alfalfa are the poorest ever on the station.

Ebb Crumb arrived on Saturday to make the station his headquarters for pea weevil control studies during the summer.

Maximum temperature, 95°; minimum, 27°; precipitation, none.



WEEKLY STATION REPORTS

OF THE DIVISION OF

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U. S. DEPARTMENT OF AGRICULTURE

JUN 12 1937

REPORT FOR THE WEEK ENDING JUNE 12, 1937.

HAVRE:

Cool unsettled weather with light showers prevailed early in the week, with an unusually heavy rain of 2.13 inches occurring late Friday night and continuing Saturday morning at the time of observation. The rain was occasionally torrential and some run-off occurred. The ultimate value of this precipitation upon the general agricultural outlook locally is difficult to state, however, considerable benefit can be expected.

Flax and alfalfa were sown in the D.L.A. field and sweetclover plantings were made in field B. Cultivation of alleys was completed. Very light yields of crested wheatgrass and alfalfa hay were harvested on dry land. The largest yield of crested wheatgrass was 300 pounds, and of alfalfa about 400 pounds per acre.

Station visitors included E. A. Starch and party inspecting Fairway farms in this territory. The group conferred at the station relative to methods of handling crested wheatgrass.

Maximum temperature, 74°; minimum, 38°; precipitation, 2.69 inches.

JUDITH BASIN:

Precipitation on nine consecutive days and good rains in the area have helped conditions considerably. The wind velocity for the week was much lower than heretofore for the past month. Besides the moisture the weather has been cold and cloudy all through the week. Up until the 11th the evaporation has exceeded the precipitation. Areas to the east and west of the station have reported rains in excess of an inch and should insure good forage and feed crops.

Pastures were suffering the most here at the station, and it is said they look the worst for this time of the year ever. The cattle on the bromegrass and crested wheatgrass continue to show gains. Those on the native grass have shown a loss and have been removed from the trial.

Station work has consisted of seeding crested wheatgrass in the date and method trial, hoeing of shelterbelts, work on the sewer system, weighing of cattle, and completing the repairs on the residence.

Visitors to the station include Professors McKee, Chittenden, and Harrington from the Montana State College; Mr. Dusenbery, County Agent of Judith Basin County; and Mike Harney.

Maximum temperature, 65°; minimum, 35°; precipitation, 0.55 inch.

HUNTLEY:

Precipitation was recorded every day except one of the last week. Light showers the fore part of the week were not sufficient to interfere with field work, but heavy rains the last two days promise to keep teams out of the fields for some time. The more recent rains were torrential in character and resulted in a high percentage of run-off, amounting to flood proportions with washed-out bridges, highways, and railroad tracks, together with some crop losses in nearby localities. Hail in various degrees of severity was also received in the county, but no appreciable loss from that source was found on the station fields.

The rainfall of a week ago was sufficient to sprout corn, soybeans, and sorgo but to date these crops have not fully emerged. Crested wheatgrass, which had become very dry and brown, now appears quite green and a few plants are starting to head.

Field work during the week has consisted of plowing land for summer fallow, cultivating alleys, and repairing structures.

Maximum temperature, 77°; minimum, 42°; Precipitation, 1.72 inches.

SHERIDAN:

The weather continued cool and cloudy over the week, with light showers, and one fairly heavy one. Grains and grass are now showing considerable improvement over their condition prior to the recent rains. Spring grains have tillered much heavier than usual, however, and it will take a considerable amount of moisture to carry them through. Seed sown in the last two weeks is emerging very slowly, and some small lots of seed that were not treated have been found rotted in the ground. Corn and flax in the rotations are very spotted, some having emerged fairly soon after seeding, some not yet emerged, and all stages of growth between. Early sown Brunner oats have headed, and winter wheat and Vaughn barley have begun to head.

Plowing for fallow was completed June 11, just ahead of the heaviest shower of the week. Seeding was completed with the exception of some late dates of seeding with late crops. Trimming of dead wood from the shelterbelt was carried on while field work was not possible.

Maximum temperature, 72°; minimum temperature, 38°; precipitation, 0.76 inch.

MANDAN:

Agronomy - The past week remained cold with heavy rain on the 5th. The rain of last week continued through the 5th and added 2.65 inches to the 1.63 inches reported last week. The rain was accompanied by a hard wind that averaged over 25 miles an hour for 48 hours. A new high for wind velocity was set on the 5th with an average of 27.9 miles per hour. The beating effect of the wind damaged crops in general and some to a serious extent. The young corn plants were badly whipped by the wind and rain, and in addition were filled with dirt. It now appears that the corn may recover enough to make a fair stand. Some corn is still coming up. It was harrowed on the 9th and 10th.

Cutworms are still very serious. The soil appears alive with them. So far the damage to corn has been confined to certain spots, but the damage is the worst to date. Cutworms continue to take smallgrains. More oats was reseeded during the week. Many of the wheat plots are excellent, but a few are nearly destroyed. Sorghums and millets were replanted, largely because the soil was badly crusted. There was slight frost damage in spots.

Maximum temperature, 74°; minimum, 34°; precipitation, 2.65 inches.

Cooperative Grazing Experiment - Pastures have improved greatly during the past week. The created wheatgrass and mixed grass showed a marked improvement. Native vegetation looks much better, and blue grama grass is growing rapidly. During the past two weeks there has been over an inch more rain at the pasture than at the station.

Horticulture: Hoeing and cultivating of orchards have been in progress during the week. Weeds, aside from peppergrass and Russian thistle, seem less bothersome this year than in previous seasons. Dead wood, especially in apples and crabs, is as yet much in evidence, and considerable pruning is still necessary in the orchards. Prospects of a fair crop of plums and small fruits such as currants and gooseberries seem fairly good at the present time.

With the setting out of 2,600 tomato plants and the planting of about 100 selections of sweet corn in the breeding projects, the planting season for vegetables was completed during the week.

The season on garden crops seems decidedly late this year due to tardy germination and cool growing conditions. The vegetable plots escaped the rather severe frost experienced in several locations in the vicinity of the station,

but some damage was caused by the high winds and driving rain experienced over the previous week end.

Cutworms are unusually numerous this spring, and some difficulty in securing a good stand of some crops has been the result. The station grounds are unusually void of bloom at the present time. Only wild roses, snowballs, and highbush cranberry are in meager evidence. Peonies are very late, due mainly to killing of the center leads earlier in the season, but promise to give a fair display later.

Arboriculture - Cultivation of the nurseries and hoeing of weeds have been in progress all the week. Some additional Chinese elm seed has been planted, and part of the American elm seed which washed out or was covered over has been replanted. Soil moisture conditions are now very favorable, but temperatures are somewhat too low for much seedling growth. The heavy driving rain of last week end did considerable damage to small seedlings, either through cutting them off entirely or driving them down into the soil, where they became fast in the heavy crust which formed after the rain.

On Thursday, June 10, Assistant Secretary of Agriculture, H. L. Brown; Dean H. L. Walster, North Dakota Agricultural College; A. J. Dexter, Department of Agriculture; Alex. Lynn, President, N. Dak. Farmers Union; and Walter Maddock, Director AAA, Department of Agriculture, visited the Station.

ARCHER:

The cool, foggy, misty, rainy weather which started May 25 continued until June 10. The precipitation during the latter part of the period was not heavy, but the high humidity kept the soil from drying, therefore field work could not proceed. The last of the snow disappeared June 7. These conditions were rather favorable for grasses and small grains but greatly delayed the growth of corn. Some of the corn emerged after being seeded 19 to 20 days, and the plants were rather yellow. That which emerged before the storm was damaged by frost but will survive.

The wet weather furnished sufficient soil moisture to make it easy to drive boiler-flue posts, therefore, practically 300 were driven during the last two weeks. Potato planting will be finished to-day, and fallow tillage will be started.

Maximum temperature, 81°; minimum, 32°; precipitation, 0.21 inch.

NORTH PLATTE:

Cool and cloudy weather prevailed throughout the week except on Saturday which was warm and clear. Rain fell only on one day, but the other days were damp. The weather was excellent for small grain, but the corn turned yellow and made very little growth. The spring small grain has made a marked recovery since the first of June. The spring wheat (Ceres) on fallow is about 2 feet in height and heading. Barley and oats on fallow have made nearly the same growth. On cropped land the small grain has recovered to the extent that a binder can probably be used in harvesting, and a fair yield may be expected. The potatoes in the rotation plots are blooming. The sorghums are emerging. The cool wet weather did not seem to cause much moulding and rotting of seed. All seed was treated with copper carbonate previous to seeding. The kalo in the kalo rotations was planted, and the first cultivation of corn was started.

The grasshoppers are still very numerous, but their migration into the plots has been checked to some extent by poison. Cut worms have done much damage to late planted corn in this locality.

Maximum temperature, 84°; minimum, 41°; precipitation, 0.76 inch.

AKRON:

Unseasonably cool weather reported last week-end continued on through Wednesday, after which a cleared sky permitted sunshine and encouraged a rise in temperature. Tuesday and Wednesday were foggy with some mist. A very light frost was reported from various parts of the country as a result of last week's minimum of 35°. About 6 o'clock Friday evening a dusty cloud was noted approaching from the southeast, which had as much up and down distance as a normal thunder shower. Very shortly the sun appeared as a dull red disk and surface visibility was cut to a quarter of a mile. This wind increased in velocity until about 9 o'clock, and developed a gusty nature such as to classify it as vicious. It was not, however, apparently picking up any soil from the surface in this region.

One strange thing about the precipitation thus far is that it is falling most heavily in the Platte valley, much lighter in the station locality, and again heavier on east in Yuma and Phillips counties. Sterling reports 2.28 inches thus far in June, whereas this station has recorded but 1.18 inches.

The seeding of the grain sorghum variety experiment was completed Monday before the advent of the damp, foggy weather. Current seeding operations were resumed Thursday afternoon. Tractor and hoes have been busy in the field whenever the weather was favorable, fighting weeds. Current work is about even, but none ahead of the season.

Corn seeded May 27 and 28 is emerging. Some squirrel damage has occurred to stands on the rotation plots. Crops have made good progress, but there will soon be visual evidence of the inadequacy of the moisture that has thus far been received. Last night's high wind was also showing as damage this morning.

Elmer Johnson of Fort Morgan, and a fellow Smith-Hughes teacher from Dalhart, Tex., visited the station Monday forenoon.

Maximum temperature, 91°; Friday, minimum, 34°; precipitation, 0.29 inch.

COLBY:

This has been a wet and cold week. It was rainy and cloudy for three days and nights in succession. Temperatures were below normal all week until today. This afternoon has been hot and sultry with a thunderstorm threatening. A week ago this afternoon there was a considerable soil moving over several square miles beginning a half mile northwest of the station where the wheat had blown out and the fields are bare. Since then there has not been much soil blowing until yesterday afternoon and last night when we experienced another dust storm.

The kafir and surface planted milo and the Sumac sorgo on the plots were planted Tuesday before the rain. The listed milo and feterita were planted today. The sorgo was also replanted today, as it was covered deep, and a crust was forming.

Winter wheat is nearly headed and so is the barley. Spring wheat is beginning to head. Nearly all the small grain plots are so weedy and late that satisfactory yields are doubtful. The oats are not late but are short and weedy. The 10 plots of wheat on 4 year fallow are thin, but very promising except for being late. Corn was very slow in coming up, but the plots are all showing fairly good stands now. It was planted May 25, and some of it is just getting through the ground. The moisture has penetrated almost 6 inches.

Maximum temperature, 76°; minimum, 39°; precipitation, 0.83 inch.

HAYS:

The weather during the week has been cool, quiet, cloudy, and damp. Showers have resulted in a total of 0.68 inch precipitation. A change in weather this morning, however, brings us a heavy south wind with partially clouded sky. As this is being written (10:00 A.M.) dust clouds can be seen in

various directions rising from cultivated fields which were made smooth by one of the dashing showers. This blowing, however, is not serious, because the areas are small and can be quickly cultivated. These are not fields that have been causing trouble, and the present blowing is due only to the fact that the rains packed and smoothed the surface.

The result of the more favorable growing weather upon the crops is that wheat on fallow and on corn ground is filling well and is approaching the hard-dough stage; some of it is already in the hard-dough stage. The heads on the corn stubble ground are very small. Weeds are growing up so rapidly in the wheat it begins to look like the wheat, even on fallow, may need be harvested with a binder instead of a combine, because of the presence of too many green weeds. On corn ground the wheat is very short, but it may be possible to gather it if it can be combined. Where wheat was seeded on wheat stubble land, regardless of how the soil was prepared, it is extremely short and the seed stalks are very thin. The heads are also extremely short and only partially filled, but the kernels will be plump. This is also in the dough stage, except for a second growth which may be found in all stages. This growth is all very short. These plots which two weeks ago were brown in color are now green as in early spring. There will be some well-filled wheat on most of these plots, but the straw is so short and so thin it will be a most difficult problem to harvest it if harvesting can be done at all.

Oats and barley are in the dough stage. Both the straw and heads are very thin and short. On all the plots except fallow the weeds are now thick and as tall as the grain. On fallow the straw is taller, but the heads are very short, and here most of the weeds are within 4 or 5 inches of the top of the grain, with a few scattering weeds standing above the grain.

Spring wheat on cropped land is short and extremely weedy the same as other grains. On fallow it is of good height, but the seed stalks are thin and the weeds are thick and growing rapidly.

Corn and sorghums planted a week ago are now peeping through the ground, and it looks like an excellent stand is assured so far as germination is concerned. To protect the row crops against loss of stand by rodents, poisoned bait was made and spread for mice and ground squirrels. Also, poisoned bran-mash was made and spread for grasshoppers which are still numerous everywhere.

Maximum temperature, 80°; minimum, 47°; precipitation, 0.68 inch.

GARDEN CITY:

There were four rains this week, totaling 0.61 inch. Most of the week has been cloudy with rather low temperatures. Two mild dust storms occurred, even though the soil is moist. Moisture samples taken on M.C. wheat plots A, B, C, and D showed that the rains the past few weeks had penetrated to a depth of 1 foot for the plots in wheat and to 2 feet for the plot that is fallowed this year.

The plots that are to be put in row crops were springtoothed but will require another cultivation before seeding, because the rains which occurred after springtoothing are bringing up more weeds. Row crop planting has been delayed 12 days because of too much moisture, but it will begin as soon as surface conditions are favorable.

Seven varieties of grasses were seeded by broadcasting and then raking in. The varieties were as follows: Buffalo, blue grama, sand dropseed, alkali sacaton, crested wheat, western wheat, and brome.

The wheat has recovered considerably, and there will probably be a harvest.

Maximum temperature, 81°; minimum, 46°; precipitation, 0.61 inch.

TUCUMCARI:

A torrential rain of 1 inch which fell in 40 minutes last Sunday caused more washing and flooded fields more extensively than the total of 4.81 inches which fell the preceding week. Field work was impossible until Thursday, but long before then fields were blowing, with resultant damage to seedlings.

Preparation for planting, planting, and scratching of planted land have progressed rapidly the past three days. After the beating rains it has been necessary to roughen planted areas as soon as possible to avoid complete loss of seedlings from drifting sand.

Ranges are in excellent condition; row crops should be promising, if satisfactory stands can be obtained; and wheat will yield higher than seemed possible two weeks ago if hail does not occur.

Maximum temperature, 90°; minimum, 51°. Wind velocity, 8.5 miles; precipitation to date, 1937, 10.32 inches.

BIG SPRING:

Although heavy rains have been reported in various parts of this area, weather conditions at the station and that part surrounding it have been favorable for field work during the entire week. A large acreage of cotton has been replanted, some of it for the third time. With favorable weather for the next few days good stands should be obtained, as there is ample soil moisture.

Wheat harvest is getting well under way in the county. Although this is normally not a wheat section, there will be several thousand acres harvested in the county this year. Yields are varying from 8 to 15 bushels per acre.

With the exception of late date sorghums, all station planting has been completed during the week. Some cotton was replanted for the third time. The May 15 date of sorghums has been trimmed and thinning has been started. Other work has consisted of knifing rotations and varieties.

Maximum temperature for the week, 100°, minimum, 60°; precipitation, none.

WOODWARD:

The past week brings to mind the old nursery rhyme of "a misty, moisty morning when cloudy was the weather". It has been cool and cloudy all week with mists and traces of rain, the total precipitation amounting to 0.27 inch. With plenty of moisture in the soil, conditions this week have allowed wheat to fill in fine shape. Yields cannot be large, but will be greater than could have been expected after the ruinous April drought.

Farmers are rushing in rowed crops under excellent conditions, but with the handicap of very questionable seed. There have been numerous inquiries for Sooner milo. There is a hope this will be an unusually favorable year when yields may be secured from land that has been in wheat.

The weather has been unusually favorable for grass plantings that have been made over the past two months.

Daylillies, daisies, asters, alliums, hyssopus, lavender, gaillardia, larkspur, crown vetch, linaria, monarda, scabiosa, spiderwort, salvia, verbena, potentilla, balloon flower, pinks, penstemon, tamarix, vitex, trumpet creeper, skullcap, hollyhocks, and numerous other plants are now in bloom. The floral display is, however, not so bright as it was a month ago. It is really surprising the number of really good plants available for use in relieving bleakness about farm homes.

Many sorghums and grasses were planted on the station during the week.

Maximum temperature, 83°; minimum, 50°; precipitation, 0.27 inch.

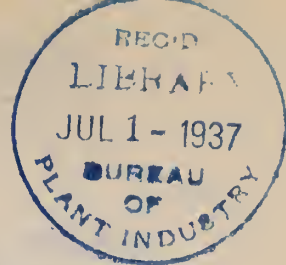
PENDLETON:

Precipitation during the week totalled 0.89 inch, with the rain occurring on four days. These rains have been of great value to spring sown wheat and late varieties of peas. The rains will help fill the fall sown wheat, but yields will not be as high as spring wheat. A very severe dust storm hit this area on the 7th, sweeping in from the north, uprooting trees, and turning over numerous small buildings. Fortunately the storm only lasted about two hours. Long-time residents compare this storm with one they experienced in 1905. Wind velocity according to Weather Bureau observers was 44 miles per hour. Work on the station has consisted chiefly of hauling hay and plowing under peas and rye for green manure. Harvest of canning peas started this week.

Those visiting the station were Dean Wm. A. Schoenfeld, Oregon State College, School of Agriculture and Experiment Station and Mr. F. A. Callister, member, Oregon State Board of Higher Education.

Maximum temperature, 85°; minimum, 36°; precipitation, 0.89 inch.

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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

JUN 19 1937

REPORT FOR THE WEEK ENDING JUNE 19, 1937.

HAVRE:

Rainfall totalling 3.09 inches during the past ten days has greatly improved the crop situation and the range. If follow-up showers are received many fields should have a chance of producing fair to good yields, however, in numerous instances, previous adverse conditions have damaged stands beyond recovery. The native range is beginning to show signs of revival, even in the badly burned places.

Various forage nursery plantings were made. Small grains and other crops planted about two months ago are now emerging. A good stand of corn is in prospect. Twenty-two acres of millet for an emergency hay crop have been planted. A thin stand of winter rye hay is being cut in anticipation that the second growth may exceed the first if favorable growing weather continues.

The mountain range was much improved by the recent rainfall, and four breeding herds were allocated early in the week. The installation of an electric fence is now in progress, which if successful will greatly facilitate the handling of stock at the lease.

Visitors included D. W. Chittenden and R. T. Clark of the Animal Husbandry Department, Montana State College.

Maximum temperature, 88°; minimum, 49°; precipitation, 0.59 inch.

JUDITH BASIN:

Two good showers during the week proved a big help to small grains. Pastures are in much better condition, and all vegetative growth has been improved. The station area still remains the dry area. Localities in all directions have reported good rains. Small grains have possibilities provided sufficient moisture is received in the near future.

Another bad dust storm occurred on the evening of the 16th. High wind prevailed for two days during the week, the remainder of time the wind velocity was low. For the most part the weather was cool and cloudy, there being only one warm sultry day.

Station work for the week consisted of harrowing corn, trimming rotation alleys, hoeing shelterbelt, weighing cattle, and preparing stakes for rotations.

The 28th Annual Station Picnic will be held July 15th. This is an outstanding event in this area. It is said attendance has been as high as 6,000. An interesting program is being worked out, and hopes are high that this years Picnic will be a big success.

Station visitors included J. M. Stephens and the officers and directors of the Judith Basin Picnic Ass'n.

Maximum temperature, 84°; minimum, 42°; precipitation, 0.64 inch.

HUNTLEY:

Cloudy and moderately cool weather with two light showers during the week has been beneficial to most crops and has retarded heavy and rapid crusting of the soil which usually follows torrential showers such as those received a week ago. Some crusting has taken place, however, and all corn plots have been harrowed to facilitate the emergence of the seedlings.

As a result of the improved moisture conditions much spring-sown grain is now coming up, and in many plots a situation exists whereby seedling and fully headed plants are present. The amount of precipitation received was sufficient to soak up the large clods on the recently plowed summer fallow plots so that they were easily reduced to a satisfactory condition by harrowing.

Field work has consisted of plowing under rye; cultivating fallows, roads, and alleys; harrowing corn; and weighing the pasture hogs.

Station visitors have included F. B. Linfield, Director, Clyde McKee Agronomist, and Dr. M. Afonasiève, Pathologist, of the Montana Experiment station.

Maximum temperature, 93°; minimum, 41°; precipitation, 0.33 inch.
Precipitation for June 1937 to date, 2.55 inches.

SHERIDAN:

Partly cloudy weather prevailed over the most of the week, with some light showers and somewhat higher temperatures on a few days. All vegetation made a rapid growth, and late crops sown within the last two or three weeks began to emerge.

Late seedings of corn and of grain and forage sorghums were made the last of the week. All plots and a part of the bulk corn were gone over with the rotary hoe, and the remainder with the harrow. Fallow in the rotations was disked, and peas are being plowed under for green manure. Some grass and alfalfa where downy brome grass was thick was mowed. Sheep were weighed and some pastures changed.

The cool wet weather over the first half of June seems to have had little effect on grasshoppers and crickets. Grasshoppers are thick on the station in spots, and another band of crickets was found to be invading the station south of the railroad yesterday. Station ground was dusted in an attempt to halt them, and later a county crew dusted the adjoining field from which they were coming. New invasions of crickets have been reported from several nearby fields where it was thought previously that they were pretty well under control.

Trimming out of deadwood and hoeing of shelterbelts was continued over the week.

Maximum temperature, 85°; minimum, 44°; precipitation, 0.35 inch.

DICKINSON:

Plenty of rain for the present has at last fallen. Thursday night a downpour amounting to 1.90 inches in about 2 hours resulted in much run-off and the worst soil washing in several years. Some damage by flooding was reported, and the last of the dams constructed in the past few years were washed out. Good amounts of rain were recorded as follows: May 31, 0.86; June 5, 1.02; June 6, 1.36; June 13, 1.72; and June 18, 1.90 inches. Lighter amounts on five other days have increased the total to 7.27 inches in three weeks. Total rainfall in 1936 was 6.72 inches. Precipitation to date in June, 6.21 inches. Total to date in 1937 is 10.07 inches. Normal to June 30, 8.23 inches.

The crop outlook has not improved in proportion to the rainfall. Grains, where the stands are good, have made rapid recovery from drought, but fully half of the grain stands have been destroyed

by soil blowing and cutworms. Pasture conditions are improving but much of the grass is dead, and a full season or longer of good growing conditions will be required to restore a normal stand.

Corn is backward and stands are very poor. Most of the plots on the main rotations, the corn varieties, and the increase fields for silage were reseeded. Some of the corn fields are being reseeded with sorgo. Flax on the rotations was reseeded, but the soil again washed over the plots so badly that stands are still uncertain. A block of 2.5 acres was seeded to flax and crested wheatgrass.

Yards and roadways were mowed. Most grass areas presented a rough, weedy appearance. Crested wheatgrass is now almost fully headed, and the earliest plants are beginning to bloom. Stands are generally somewhat thin and the plants short. The outlook for a seed crop is greatly improved during the month, but yields will be below average.

Maximum temperature, 87°; minimum, 50°; precipitation, 3.68 inches.

MANDAN:

Agronomy - The past week has been favorable for crop growth. Cutworms are still damaging crops. Corn has improved during the week, but it is thin on many plots. Replacing is not necessary at present. Fallow plots were duckfooted during the week. Crested wheatgrass has grown rapidly during the week, and now looks like it would make a good crop of hay and seed. Wheat is the best crop on the station at present. A few plots were damaged by cutworms.

A good rain fell over the week end and 0.25 on the 17th.

Maximum temperature, 84°; minimum, 48°; precipitation, 1.40 inches.

Cooperative Grazing Experiment - Native pasture improved during the week, but weeds are bad in all pastures, especially pepper grass. Crested wheatgrass in the pastures made a good growth during the week and is now furnishing abundant feed for the steers.

Horticulture - Vegetables, since the last rains, have emerged with fair to good stands and give more promise of a crop than for several years past. The weather has been somewhat cool for melons and corn, and these crops are on an average about two weeks late.

Trimming road sides and pruning trees and shrubs on the station grounds has been in progress during the week. There is much dead wood everywhere, and considerable work is needed to put the various group species into shape again.

Hybrid rugosa, wild roses, spirea Van Houttei, and Villosa and Josikea lilacs are in bloom at present. The latter lilacs are unusually fine this year in rather sharp contrast to the Persian and common lilacs which had much winter injury and scant florescence.

Peonies are starting to blossom but show considerable frost injury after the late frost this spring.

All plants are making a good growth following the recent rains. Trees are looking much better than earlier this spring, but much dead wood remains to be removed.

Work during the week included tying up and suckering grapes and budded stock, hoeing, removing dead wood, seeding bromegrass, building small dams to check soil erosion, and cultivating.

Arboriculture - Hoeing of weeds and cultivation of nursery fields has been continued during the week. Weeds are now growing

rapidly. Chinese elm has emerged to a good stand and also some late sown American elm seed of the 1936 crop. Growth of all seedlings is extremely slow, even though temperature and moisture conditions are now favorable. Caragana has set the lightest seed crop in the history of the station. The weakness of the trees and the heavy driving rains at the time of blossoming are probably responsible. Russian-olive is now in blossom and appears favorable for a heavy seed crop. Blister beetles and grasshoppers are doing heavy damage to caragana and locust seedlings.

Twenty five members of the Washburn (N. Dak.) 4-H Club visited the station on June 18.

BELLE FOURCHE:

Soil moisture conditions were further improved by heavy rains of 1.58 inches precipitation on June 4 and 5, and 1.12 inches precipitation on June 11 and 12. Some run-off occurred on June 12, but otherwise practically all the moisture was absorbed by the soil. Soil samples taken June 8 showed that continuously cropped wheat plots were wet to a depth of 16 to 19 inches, and that on land summer fallowed the previous year the soil was well filled with moisture to a depth of about 28 inches.

A cold, very high wind accompanied the rain on June 4 and 5, badly bruising the leaves of all crops and doing considerable damage to trees. Rather heavy losses of livestock occurred from sheep and cattle without shelter becoming chilled. Some of the highways in the Black Hills were blocked by snow and fallen trees, but no snow or frost was received in this vicinity. Just preceding the storm, the air was filled with dust reported to be from severe soil blowing in Canada and north-central Montana. The sun was obscured during the afternoon and evening of June 3, and visibility was reduced to about 1 mile.

The cold, cloudy weather has been unfavorable to corn, which has a very yellow sickly appearance; but small grain, field peas, and grasses have made marked improvement. Small grain, germinating since the first beneficial rain, is coming up, and fair stands have finally developed on all the spring plowed plots. Reseeded sweetclover, and considerable early seeded sweetclover, alfalfa, grass, and flax are also emerging.

The soil has been too wet most of the period to permit work in the field. Sorgo plots were prepared for seeding, sorgo was planted, rye was plowed under for green manure, and all plots were trimmed.

Visitors included S. H. Hastings, Division of Western Irrigation Agriculture; and A. C. Hildreth and R. D. Taylor, Horticulture Field Station, Cheyenne, Wyoming.

Maximum temperature, 81°; minimum, 37°; precipitation, 3.07 inches.

ARCHER:

The weather during the week ending June 19 was warm and dry with gusts of heavy winds and a few local showers, however, the showers passed round the station.

Plant growth responded to the warmer temperatures and moist soil. More rain would be of benefit, especially to the pastures, which are now in prime condition but need moisture to maintain the present rate of growth. Winter rye is ready to be harvested for hay, and early seeded barley is in boot. Corn is making a better showing. Sorgo, millet, and Sudan grass seeding is in full swing.

Work at the station consisted of plowing the fallow plots, tilling the plots and fields to be seeded to millet, and seeding millet.

Director W. L. Quayle visited the station June 18.

Maximum temperature, 88°; minimum, 41°; precipitation, trace.

NORTH PLATTE:

Good corn weather prevailed throughout the week. A light shower fell on Tuesday. The humidity has ranged around 60 per cent, and although the temperature has not been excessive, it seemed very warm.

The green manure plot of Colorado field peas was plowed under and the summer-tilled plot was plowed June 15. The corn in the plots received its first cultivation and was thinned during the week. The roadways and plots were cleaned up in preparation for Field Day. The spring grain is fully headed, and some of the early varieties of barley and oats are filled. The bulk of the grain will probably be ready to harvest by the second week of July. More rain will be needed to fill the later varieties. No rust has been observed in the wheat to date.

The first crop of alfalfa has been stacked after being delayed by wet weather for the past two weeks.

About 100 Smith-Hughes teachers from all of the State visited the station on Friday.

Maximum temperature, 98°; minimum, 51°; precipitation, 0.32 inch.

AKRON:

The early part of the week continued cool, with enough rain for immediate crop needs. Small grains, both winter and spring, look promising with no typically burned spots on any of the plots. Club Mariout barley, in head, looks especially pretty over the countryside. Hot weather over the week end has encouraged the first growth activity on the part of corn, beans, and millets. This heat also emphasizes the precarious nature of the soil moisture available for small grain seed production. On preparations other than fallow, another good rain at once would be extremely timely.

Green manure pea plots were plowed Friday. Peas were succulent and about 14 inches high, but the plots were only about 80 per cent covered. Peas had not yet bloomed. Other work was the cultivation of open land and roadways. Current seeding operation with millets and beans were accomplished. The fighting of wild lettuce and of mustard has been the duty of a small crew of boys all week.

Cut worm moth flight has apparently reached a peak this week, the pests storing themselves in cars during the night by the hundreds, and working their devious ways into houses to flit aggravatingly about lights in the evenings. On mornings, the opening of outside doors would reveal hundreds secreted between the door and the facing. They could be flushed during the day from the denser shrubbery by the thousands.

A. E. Rupp of Washington, and H. D. Petheran of the Amarillo office, both of the Forestry Division of the Soil Conservation Service, visited Tuesday.

Maximum temperature, 97°; minimum, 46°; precipitation, 0.69 inch.

COLBY:

The weather has turned off dry, hot, and windy again. A hard rain covered most of the county a week ago this afternoon. In the southeast part, it was accompanied by one of the worst hail storms ever to visit this part of the State which destroyed perhaps a hundred thousand dollars worth of wheat. It did not rain any here that day. Much of the wheat over the country is looking fairly promising, but is very late. The temperature rose above 100° today, the first time this year. All crops are beginning to wilt.

The June 15 plowing of fallows was done this week. Where nothing had been done to the ground previously, the ground turned up practically dry. Sorghums planted last Saturday are beginning to come up. Corn is making excellent growth. The spring small grains look very poor. They are all weedy. The winter wheat looks good, but it also is weedy on most plots and is just beginning to fill.

Maximum temperature, 97°; minimum, 53°; precipitation, 0.48 inch.

HAYS:

After moderate temperatures and a moist atmosphere for some time, this week is closing with high temperature and hot winds yesterday and today. The result of the change in climatic condition is that maturity of barley, oats, and winter wheat is rapidly approaching. These grains have almost reached the stage of maturity for binder harvesting. It will be about a week before the winter wheat will be sufficiently dry for combine harvesting.

The rains of the month have developed a thick stand and rapid growth of weeds on all plots, roads, and alleys. Cultivation is being crowded at this time to destroy this crop of weeds before harvest time except on small grain plots. Corn was cultivated yesterday for the first time, and sorghums are being cultivated today, also fallow plots are being cultivated.

Among the visitors of the week were Dr. McCall, Ass't. Chief of the Bureau of Plant Industry, President F. D. Farrell, Kansas State College, Director L. E. Call of the Kansas State Experiment Station, and Dr. Newman in charge of Cereal Crop work in Canada.

Maximum temperature, 103°; minimum, 58°; precipitation, 0.32 inches.

GARDEN CITY:

The amount of precipitation has fallen off this week, only 0.25 inch being received. Temperatures have increased some, the maximum the past two days being 97°, which is the warmest so far this year. Two mild dust storms occurred.

Row crops were planted on a good seedbed and are now emerging and should form a good stand. Soil samples taken on row crop plots showed, in general, a moisture depth of 2 feet. The grasses, blue grama, western wheat, crested wheat, and brome which were planted early this month are coming up; but buffalo, sand dropseed and alkali sacaton have not appeared yet.

The wheat is beginning to turn and is in fair condition considering what it has been through. The sparrows are causing some trouble by threshing out the grain on some of the plots.

E. W. Johnson of the Woodward station was a visitor.

Maximum temperature, 97°; minimum, 56°; precipitation, 0.25 inch.

TUCUMCARI:

Excellent field progress was made the past week. The remaining rotation plots were planted; the second planting of grain sorghum, forage sorghums, broomcorn, and cowpeas were made; and some increase land was planted to sorghums. An early July planting of cooperative plots and a small amount of increase land remains to be planted. Work included cultivation of tree rows, orchard, and vineyard, and mowing weeds bordering fields and tree rows.

Early wheat on the plains will be ready for harvest within 10 days. This is the portion of the crop which did not kill to the ground. Fields where plants died back and a late sucker crop developed will be mature about July 15. A few fields will probably produce from 15 to 20 bushels to the acre, but many will run from 10 to 12, with perhaps many averaging not over 5 bushels.

No precipitation was received the past week, and temperatures were by far the highest of the year, approaching normal for this period. Periods of high wind have necessitated running bull tongue shovels between rows of all crops planted before the last rain.

Maximum temperature, 96°; minimum, 56°; wind velocity, 6.5 miles.

DALHART: Report for the two weeks ending June 19, 1937.

Rotation plots of milo, kafir, and corn which were planted the week ending June 12 are now showing thick stands. Very few skips are in evidence. The peanut, soybean, and pinto beans are also showing stands. Emergence for that week to stands was within 5 to 7 days. Full emergence is being secured in from 4 to 6 days from seed planted the first two days of this week. The rotation plots were in excellent condition for planting, and excellent stands are expected, even on the last of the drilled rotation plots which were seeded today. Variety plots are going to show a few skips to poor stands in certain rows, because of the inability to work down the lister ridges at the particular time when the soil should have been worked. With the possible exception of three plots of the first date of planting of the sorghum varieties, good stands will be secured. On the last date of planting of the sorghum varieties, planted this week, emergence should be good except for a few dry rows. In addition to the above material the following planting has been done: Some increase areas to Sudan grass, a duplicate sorghum nursery of 60 varieties and strains, the broomcorn varieties, the sorghum varieties on fallow, a milo-disease nursery of 251 strains, a spacing test with sorghums, a soybean nursery of 100 selections, the cowpea and bean variety test, some increase seed areas, a 100-row head-row nursery with Sedan kafir, and some miscellaneous plant material. There remains to plant at once some increase fields and miscellaneous material which will take about two days with two planters. Then there is the final or late date of planting of sorghums, which is not due to be planted for about two weeks.

Stands in the drier and most eroded portions of the adjoining territory will, in the main, be poor. This will be due largely to the fact that rains during the past two weeks have been negligible, and to the fact that under those conditions the soil dries out rapidly, and to the additional hazard of the loose, shifting soil.

Maximum temperature for the past two weeks, 98°; minimum, 47; precipitation, none.

BIG SPRING:

Weather conditions during the past week have been favorable for field work, although it has been hot and windy. In places where the soil has not been worked since the rain, some crop damage has been reported from blowing, however, this condition has existed in only a few isolated spots.

Most crops are making a good growth, and the sorghums are about ready for thinning. The May 15 date of sorghums was thinned during the week, and the rotations will be ready soon. The June 15 variety date of sorghums was planted as scheduled, and most of them are now emerging to stands. The Station wheat plots were threshed during the week; yields varied from 3 bushels per acre on late fall plowing to 12 bushels on disked cowpea land. Other work during the week has consisted of knifing rotations and increase fields and cultivating early dates.

Maximum temperature, 98°; minimum, 68°; precipitation, none.

LAWTON: Report for the two weeks ending June 19, 1937.

Heavy rains, widely scattered throughout the State, during the past two weeks were responsible for considerable flood damage, but such rains as were received in the vicinity of Lawton and adjacent territory were beneficial to row crops and grasses. Seven rains from the 6th to the 15th of June totaled 1.87 inches.

Moderate temperatures prevailed up to the 14th. Since that date the maximum has varied from 96 to 98°.

Sorghums and corn have made a very rapid growth and are in excellent condition at present. Corn has been silking and tasseling under quite favorable conditions. Cotton growth has been fairly good, and the crop is in condition to respond rapidly to warm weather. Grasshoppers continue their damage in spite of the extensive use of poison. A few plots on the station have been rather heavily injured.

Combines and threshers are delivering a large volume of wheat to local markets. Yields from seeded acreage range from 17 to 25 bushels per acre, and on volunteer fields from 12 to 18. The quality of the grain is good, test weights varying from 60 to 65 pounds per bushel.

B. F. Kiltz and Sidney H. Watson, both from the Galina, Kans., office of the Soil Conservation Service visited the station June 18.

WOODWARD:

The fore part of the week was cloudy and cool with heavy dews and threats of rain and actual precipitation of 0.49 inch. Farmers kept headers running despite poor conditions for harvesting. The latter half of the week was hot and clear with moderately high winds. Yields reported over the country are unusually high on poor sandy land where wheat did not stool heavily and very poor on better land where it did.

Despite repeated rains there has been very little washing out of rowed crops. On the station the stand of sorghums is all but perfect. Harvest of wheat except for a little in the nursery will be completed today. Conditions in general on station work are about all that could be desired for this time of year. With reasonable weather conditions, a clean up of weeds and thinning of sorghums will be completed over the next ten days.

The showiest thing on the station is the hybrid trumpetcreeper. This has scarlet flowers much larger than the ordinary trumpetcreeper. The only adjective descriptive of these plants at present is "flaming".

The soapberry is now loaded with panicles of creamy bloom. This is undoubtedly one of the best and most reliable of shade trees where it can be given water. It has been used but little, because in natural settings it is usually scrubby, and its possibilities have not been recognized.

Maximum temperature, 100°; minimum, 57°; precipitation, 0.49 inch.

BELLE FOURCHE:

Moderately warm weather favorable to plant growth prevailed throughout the week. A shower of 0.17 inch precipitation was received during a thunder storm on the evening of June 17; but a heavy down-pour of cloudburst proportions occurred in nearby localities, and more or less damage was done by flood water. A very high wind, almost a tornado accompanied the storm, and a number of farm buildings in this vicinity were damaged, a few being completely demolished.

Small grains made an exceptionally vigorous growth, but were partially lodged by the high wind. Corn recovered some of its normal color, but is still backward. All other crops made rapid progress. Winter rye finally completed heading, early flax is beginning to bloom, and sorgo is emerging.

The artesian well on the station suddenly came in with a heavy flow of water on June 17, while being cleaned out. The estimated flow, based upon measurements with a weir, is 175 gallons per minute, and the pressure at the top of the well is over 110 pounds per square inch; the water is quite hot, the temperature being 120°, but it appears to be very hard.

Visitors included R. D. Taylor, Horticulture Field Station, Cheyenne, Wyoming; L. A. Hurst and E. S. Lyons, Division of Soil Fertility Investigations.

Maximum temperature, 85°; minimum, 47°; precipitation, 0.17 inch.



WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

JUN 26 1937



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REPORT FOR THE WEEK ENDING JUNE 26, 1937.

HAVRE:

Light showers, higher temperatures early in the week, and brisk winds on several days characterized the weather. Precipitation since June 1 now totals 3.68 inches. Crop and range conditions continued to improve; however, owing to previous adverse conditions, small grains generally will probably be quite variable in performance, since all stages of growth, from emergence to heading can often be found in the same drill row. Spring rye and oats in the D.L.A. project headed the first part of the week and spring wheat during the last two days.

Flax, alfalfa, sweetclover, and millet recently sown, emerged with uniform stands. Weeds have come on rapidly since the rains, and fallow plots received their first cultivation with a duckfoot.

First cutting of irrigated alfalfa is in progress, the growth being somewhat irregular; however, production as a whole will be fair but probably below average.

Visitors included M.M. Hoover and A.D. Stoesz of the Erosion Nursery section, S. C. S.; S. E. Clarke and R. M. King of Saskatchewan; George Stewart, Forest Service, Utah; and M. P. Hansmeier, Extension Conservationist, Bozeman.

Maximum temperature, 95°; minimum, 46°; precipitation, 0.40 inch.

JUDITH BASIN:

Crops and pastures continue to make a gallant effort to keep growing in hopes of receiving much needed rain. This past week the good shower of 0.26 inch on the evening of the 21st together with the unusually cool weather has kept plant growth in fair condition. There were two warm days during the week, otherwise it has been cool enough to have light fires for comfort.

Work during the week consisted of cleaning and distributing rotation plot stakes, trimming alleys and plots in nurseries and varieties, harrowing corn, listing fallow, and other miscellaneous station work.

Dr. Bamberg of the Division of Cereal Crops & Diseases, Bozeman, spent Monday and part of Tuesday supervising his nursery work here.

Maximum temperature, 93°; minimum, 40°; precipitation, 0.29 inch.

HUNTLEY:

The past week has been generally favorable for crop growth. Although the nights have been almost unseasonably cool and with a light frost reported from nearby sections, the day-time temperatures have been high. Corn, beans, and sorgo have made marked response to the warmer weather and while still late, they have a more healthy appearance.

Small grains are full-headed on plots of uniform stands. More moisture will be needed to fill the heads than is at present in the soil. Alfalfa has made a good growth, and the first cutting will be heavier than for the last 3 years.

Grasshoppers are hatching rapidly, and while they are not present in alarming numbers in any particular spot, they are numerous enough to be dangerous if harvested hay and grain crops force them to concentrate on late-season vegetation. Preparations are being made for poisoning. Mormon crickets have advanced, during the week, to within 3 or 4 miles of the station. Farmers in the infested areas have been putting on a vigorous control campaign but have not been able to stop the march. The insects appear to be doing little damage to crop plants on the dryland farms but have confined their feeding to certain native weeds.

Field work has consisted of cultivating row crops, plowing under peas and sweetclover, cutting hay, and harrowing fallow.

Maximum temperature, 100°; minimum, 39°; precipitation, None.

SHERIDAN:

Quite warm weather prevailed over the first of the week, but the last 3 days were fairly cool. Only a trace of rain occurred. All crops made good progress. All winter wheat, and most barley, and Reward spring wheat are now fully headed, and spring wheat is beginning to head. Early sown Brunner oats are beginning to turn. Alfalfa, excepting some badly thinned by winterkilling, was mowed.

With the coming of warmer weather, crickets began to come down from the hills in large bands and are now over-running much of the lower lands, doing much damage in places. The most of the station is now completely covered with them. Dusting was started again as soon as they were discovered coming on the station and has been continued since, but what can be done with the one station duster available probably will not be of much consequence, and no help from county dusting crews has been available this week. Whatever crop is saved, other than the hay already being harvested, probably will depend more upon what the crickets themselves do than on what dusting can be done, whether they keep moving, or stop and eat. So far not much damage can be noted.

Maximum temperature, 95°; minimum, 45°; precipitation, trace.

MANDAN:

Agronomy - The past week has been favorable for crop growth. The warmest days of the season occurred during the week. Corn was given the first cultivation. It improved markedly during the week. Cutworms continue to damage corn, and some plots were so badly thinned out they had to be replanted. Some hay was cut during the week. The grass made a good growth after the rains.

Maximum temperature, 99°; minimum, 54°; precipitation, 0.02 inch.

Cooperative Grazing Experiment - Native vegetation continued to improve during the week. The steers are looking good and appear to be putting on heavy gains. Blue grama grass is starting new growth in spots that appeared to be entirely dead.

Horticulture - Fruit trees and nursery stock have been making a good growth during the warm weather following the rains. Prospects indicate a good crop of most wild fruits and a fair crop of native plums and crabapples, but a poor crop of small fruits, apples, and Japanese hybrid plums.

Most of the week has been spent in removing dead wood from trees and in hoeing. Stakes were made for horticultural cooperators.

Hoing and cultivating of vegetable plots has been in progress during the week and is about completed. The various crops have made good growth, and the cutworm damage seems to have let up somewhat. Considerable replanting of sweetcorn was found necessary, and this is now up with a very good stand. The stands of melon selections were also badly depleted, and the season being so far advanced but little replanting was done in this project.

Pruning shrubs and trees about the grounds has been mostly completed. The lawns are drying up, and irrigation will be necessary in the near future.

Perennial flowers, such as peonies, gaillardia, columbines, Iceland poppies, and gypsophita are in bloom, and provide welcome spots of color about the grounds.

Visitors for the week included C. W. Roberts and Smith Hughes class, Rugby, N. D.; Grace DeLong, Extension Dept., N. Dak. Agric. College; Dr. Max Hoover, Ray Tower, Dolan Earle, S.C.S., Washington, D. C.; Dr. A.D. Stoesz, S.C.S. Rapid City, S. Dak.

ARCHER:

The weather during the week ending June 26 was warm and dry until June 25 when it became cool and cloudy. A gentle rain started at 11:00 A.M. and continued until the morning of June 26. The total precipitation was 0.83 inch. At this writing, June 26, the humidity is at the saturation point and clouds are low and threatening.

Before the rain small grain crops and grasses were very much in need of moisture. Weeds in the prairies were burning and the grasses were wilting. Wheat on the poorer methods of tillage and cropping were firing, however, weeds on the tilled ground made a rapid growth.

Work at the station consisted of seeding millet, Sudan grass, and sorghum crops; tilling the fallow fields; cutting 20 acres of rye for hay; and hauling and stacking about one-fourth of this hay. The weed work consisted of cultivating the rotation plot alleyways and hoeing weeds among the trees.

Mr. R. A. Williams, Soil Conservation Service, Rapid City, S. Dak., visited the station June 23.

Maximum temperature, 94 ; minimum, 49°; precipitation, 0.83 inch.

NORTH PLATTE:

High temperatures and hot winds on Tuesday and Wednesday severely damaged the spring small grains. The grain had made remarkable recovery the first two weeks of June, but with no moisture reserve in the soil, the grain could not endure such heat. A temperature of 106° was recorded on Tuesday. This temperature has been equalled only once for June in the past 30 years. The temperature for the last half of the week moderated and dropped to below normal. A rain on Friday night totaled 0.91 inch, this being the highest rainfall recorded during 24 hours this year. This will add enough moisture to the soil to save much of the small grain unless more hot days follow next week.

The corn is making good growth. The work of the week consisted mostly of cultivating corn and sorghums and thinning corn.

Some red stem rust is present in the spring wheat. Unless conditions are very favorable to rust, little damage will be done in this locality. Grasshoppers are moving into the plots and are eating the leaves of corn, the beards off the barley, and the heads off the oats. They are present in such numbers that poisoning does not seem to decrease their number very materially. The army cut worm is attacking the alfalfa and is preventing the second crop from starting.

A very successful field day was held on Wednesday. About 150 farmers and their families were present. A travel class from Iowa visited the station on Thursday, and J. Allen Clark inspected the spring wheat on Friday.

Maximum temperature, 106°; minimum, 55°; precipitation, 0.95 inch.

AFRON:

The week opened with a maximum of 90°, which was the beginning of a June heat period very remindful of the one experienced last year, but Friday brought cloudy weather and light rainfall, and a maximum reading Saturday morning of 78°. This was the only one of the weeks' readings below 90°. The weekly maximum on Tuesday of 103° was the hottest June temperature ever recorded at this station. The rainfall of 0.53 inch brings the June rainfall to 2.40 inches, the average.

The temperature of 103° actually scalded gooseberries on the outer side of the bushes. It turned headed barley beards white, but these have since taken on a greenish appearance again, and damage to the bushel weight of the barley may be light. Other small grain crops seemed to withstand this heat period better, though winter wheat ripened sharply. Blackhull winter wheat is near enough ripe to show typical black beards and chaff.

Corn, sorghums, beans, and the millets were benefitted by the warm weather and really started vegetative growth.

Hurley Fellows arrived about mid-week to resume root rot studies of winter wheat. J. Allen Clark visited Saturday in the interest of cereal improvement work. Rex Willard and other officials, including Lyle Linesmith of the Land Use section of the Resettlement Division visited Saturday.

Maximum temperature, 103°; minimum, 53°; precipitation, 0.53 inch.

COLBY:

The first five days of the week were very unfavorable to all crops, being very hot and most of the time windy and dusty. The last two days have been unexpectedly favorable, rainy, cloudy, and very cool. The rain which amounted to an inch and was general over this area should help fill the heads of all small grains and give the corn and sorghums a chance to establish themselves.

Much of the winter wheat and the other small grains on the station have burned badly. The spring small grains on the plots will be practically failures. They are weedy and most of the heads are blasted. The winter wheat on the 4 year fallow block is thin and late but very promising. The other fallow plots will yield less than 10 bushels in most cases. The yields on the continuously cropped plots will be very low.

Corn is making excellent growth. It was cultivated this week. The sorghums were up to good stands, but on the listed plots were not getting established very well during the hot weather. Since

the rain the sorghums, too, have been making rapid growth.

President Farrell and Dean Call of the Kansas State College and Secretary J. C. Mohler of the Kansas State Board of Agriculture visited the station Thursday. Dr. John H. Parker and A. L. Clapp of Manhattan and A. W. Erickson of the Mid-Continent Grain Co. of Kansas were here today.

Maximum temperature, 107°; minimum, 56°; precipitation, 1.0 inch.

HAYS:

The week has been dry and hot with daily hot winds and daily maximum temperatures above 100°. This morning the heat wave appears to have been broken by a cool north wind which started early last night. Throughout the week the wind has been continuously in the south and southwest.

Small grains have ripened rapidly. Barley and oats were harvested early in the week. As a matter of fact, about all that were worth harvesting was on fallowed ground. Several other plots, however, were cut over with a binder and some were clipped with a mower.

The only winter wheat that is worth harvesting is that sown on fallowed ground, some on corn ground and on wide-row spaced kafir ground. The best yield thus far harvested is 25 bushels on fallow.

Corn and sorghums are making satisfactory growth, but the corn is already being damaged by grasshoppers, despite the fact that much poison-bran mash has been spread for them. There are just too many grasshoppers that like corn. Because of the damage being inflicted by the grasshoppers, thinning of corn has been temporarily postponed.

Maximum temperature for the week, 109; minimum, 63°; precipitation, none.

GARDEN CITY:

On six days out of the seven the maximum temperature has been 101° or above. No rain was received with these high temperatures. Four days were mildly dusty. Most of the dust came in from some distance.

The row crops are making a rapid growth and will be thinned next week. The wheat is nearly ripe, and harvest will begin within a few days.

Field work consisted of springtoothing the fallow plots to destroy weeds. Soil samples were taken on M. F. milo, L and M, M. C. milo A and B, the milo diked plot, and on the wide row milo plots.

Mr. Alvin Lowe, who has been employed by the Soil Conservation Service, will arrive July 1 to take over the crops work on the State project.

Maximum temperature, 106°; minimum, 60°; precipitation, none.

TUCUMCARI:

Normal seasonal temperatures have existed, and, with periods of brisk winds, have dried the soil rapidly. Rain would be beneficial to break the hard, dry crust on row crops, but it is more urgently needed on ranges and on late, suckered wheat on the plains.

Little wheat will be harvested before July 5, and the majority of the late crop may not mature before the middle of July.

Late wheat seriously needs rain, and the yields depend almost entirely on this factor. Early wheat is "made" and rain would not be of appreciable value.

During the week field plots were trimmed, thinning of row crops was begun, M.C. wheat and rye were harvested, and a little threshing was performed.

Maximum temperature, 99°; minimum, 63°; precipitation, none.

DALHART:

It is now more than three weeks since a rain. Rather high winds have exhausted the moisture from the surface soil on the cultivated areas, and the weeds have exhausted much of the moisture on the undisturbed areas. Weeds in the pasture, chiefly Russian thistle, which were growing luxuriantly and furnishing an adequate shade cover for the ground, began to show a shortage of soil moisture in random locations by the middle of the week. By to-day they are showing decided browning on the higher areas. A rather striking part of the pasture is the almost entire absence of thistles above the terraces where the water stood following the May rains. There now appears to be much less native grass cover in the pasture than in either of the two preceding years. The scouring action of the sand during the spring probably accounts for this decrease in the population of the native grasses. On all except the northeast slope in the pasture the blue grama seedlings from last year were destroyed by erosion or by soil accumulation. The terraces on the northeast slope, where the wind damage was not so acute, still show a rather poor to good stand of blue grama from the 1936 seedings. The plants are good. In the date-of-planting with blue grama in the north Field in 1936 the north part of the area where the thistle and other cover was allowed to remain was destroyed by soil accumulation. In the south part of the area, where there was no protection last year and where the frequent shifting sand has kept down annual weed growth this spring, the last year seedlings of blue grama are still standing the punishment but with the stands reduced.

A general statement of stands secured and anticipated for the current row crop planting season on the station is to the effect that the areas planted the first week following the rains show good stands while planting since that period have ranged from good to spotted or scattering. With the drying winds that was expected. The rotation surface planted plots of kafir and milo show excellent emergence. Pinto beans, soybeans, Sudan grass, and the row plots of sorgo also show thick stands. Corn plots have a thin stand with poor to good distribution. Cowpeas, planted eight days ago, are rather thin in the row; possibly the poorer stands of cowpeas are due to a poor vitality of the seed although the seed appeared to be unquestionably good. Drilled plots of sorgos will show insufficient stands. Thinning of kafir and milo rotation plots will start Monday. Stands of sorghum varieties and nursery plantings range from excellent to skips in almost an entire row. Sorghum nursery material planted Monday has come up thick except for a few rows. The soybean nurseries show excellent to poor stands. Increase fields planted during the week appear to be coming good. Sudan grass planted on the increase areas in the west Field for cover purposes is up to exceedingly thick stands. Listed rotation plots of kafir and milo show thin in the row but with apparently ample stands. The milo

disease nursery planted a week ago today shows excellent emergence for all of the 288 rows. Planting of a miscellaneous grain sorghum nursery, which consists largely of selections resistant to milo-disease from the two crosses Wheatland X Kalo and Beaver X Resistant milo made by Dr. John H. Martin, was delayed in the hopes of more favorable planting conditions. The planting was delayed until June 25 and was accomplished by first nosing out furrows (in previously prepared soil) with sweeps on the lister and immediately planting with furrow openers. This put the seed on firm moist soil and barring high winds or heavy rains emergence is expected. Planting is completed as outlined for the season with the exception of the last date of planting of sorghums, which is scheduled for the latter part of next week.

Farmer comment relative to stands is to the effect that good stands were secured on the earlier plantings but with poor distribution of emerged plants on the later planting. Some report good stands on all plantings. Last night (the 25th) soon after dark a hard wind came up from the north that moved considerable soil. Land freshly listed looks to have excellent tilth, but within 24 hours the areas with even the light accumulations is structureless-- or what seems to be the proper term is that it is in a 'flow' condition. After the high wind of last night, it is expected that sandy fields in this territory would have considerable acreage of the stands destroyed. A farmer on sandy land near the station reported this (Saturday) afternoon that he had had excellent stands on his 500 acres of row crop, but that now 400 acres were completely covered, with the lister furrows and ridges levelled by last night's wind. There is no prospect of replanting this type of soil unless a heavy rain should come at once. Damage on the station was apparently confined to the tender leaves of the cowpea plants which have just emerged.

Maximum temperature for the week was 99°; minimum, 62°; precipitation, none.

BIG SPRING:

Warm, dry weather has prevailed during the past week; this condition has given most crops a chance to emerge and has also provided an ideal week for weed killing. A light rain now would be very desirable for settling the loose soil around the young crops. Thinning and cultivating sorghums has occupied the time of the station force during the entire week. The June 1 date of sorghums, the milo in the spacing experiments, and kafirs in the rotations were thinned. All plots were cultivated soon after thinning, and increase fields were knifed.

Maximum temperature for the week, 99°; minimum, 71°; precipitation, none.

LAWTON:

The first week of hot weather in the 1937 season was decidedly uncomfortable, as the maximum temperature ranged from 100° to 104° from the 21st to the 26th. No rain has fallen since the 15th, and vegetative growth of all kinds would be greatly benefitted by additional moisture and moderate temperatures.

Sorghums made a rapid, succulent spring growth, and wilting was evident during the past week, especially where the plants were spaced close in the row. In the sorghum variety test 14 of the 20 varieties were showing first heads June 22-26. A good many strains and selections in the chinch-bug sorghum resistance project have also been rapidly coming into head. Practically the same material began heading July 5 to 10 in 1936.

Farmers throughout the southwestern part of the State are rushing the largest wheat crop produced in the last 6 years to market as fast as the threshers can deliver the grain. Threshing progressed steadily the past week, but as yet only a start has been made. Yields are reported from 17 to 30 bushels per acre. Local markets have been rather wild, fluctuating rapidly between 90 cents and 1 dollar per bushel.

Station threshing advanced slowly on account of unavoidable machinery repairs. About 8 acres of Tenmarq wheat made approximately 28 bushels per acre. Rotation plots of wheat on topdressed fallow, manured fallow, fallow, and green manure yielded 35.5, 34.2, 31.3, and 28.5 bushels per acre, respectively. The test weight was 61 pounds.

WOODWARD:

The past week has been ideal harvesting weather, winds being moderate, temperatures high, and sky clear. All harvesting except a little in the Cereal nursery has been completed. All of the after harvest plowing and one-waying on the D.L.A. project has been completed. Because there is still moisture in the soil, conditions for tillage were very satisfactory. Row crops are growing vigorously. There were no heavy rains after planting to crust the soil or to cover plants and seed too deeply. Stands are all but perfect on the station and in farmers' fields. Thinning on the station is far along and will be completed within a day or two. The only adverse condition at present is grasshoppers. They are the worst in 20 years. They keep emerging from the soil as rapidly and almost as numerously as weeds do. They lift from pastures and drift with the wind, covering fields which are comparatively free from them. On the station there are none except in a few places where the soil has been undisturbed for years. It is assumed this is due to the deep and thorough cultivation practiced that has not allowed any gradual building up in numbers. Fortunately, also, most of the alfalfa on the place was plowed up last fall, which destroyed them there. Even from home owners in adjacent towns come many inquiries as to what to do to save their trees and shrubbery.

A light crop of apricots is being harvested this year for the first time in many years.

Shade trees which put on a luxuriant foliage early are beginning to suffer. Moisture did not go deeply enough to sustain them long.

A week ago the red hybrid trumpetcreeper was at its best. This is now fading. The Chinese trumpetcreeper with large orange blossoms is now a thing of great beauty. Balloon flowers are again proving preeminent for midsummer bloom in the perennial garden.

Maximum temperature, 104°; minimum, 72°; precipitation, none.

PENDLETON: Report for the two weeks ending June 26, 1937.

Precipitation during the past two weeks totalled 2.48 inches.

Normal precipitation for June is 1.25 inches. To date in June we have received 3.43 inches of rain. The rains seriously reduced the cherry crop in the Milton-Freewater, Hood River and The Dalles sections. The rains cause the cherries to crack and be unfit for the fancy markets. The Milton-Freewater district in this county normally ships about 100 cars of cherries, shipments this year were cut to 15 cars. The continued rains delayed harvesting of canning peas. The rains have practically insured a good yield of late peas. Some alfalfa hay has been lost due to rains. The wheat farmers and stockmen are elated over the rains, as much higher yields of grain are assured and the ranges have been materially benefited. On the station spring oats made the greatest recovery after the rains, plots which were badly burned are now about 24 inches high and from all appearances will give a fair yield.

Visitors included E. R. Jackman, Extension Agronomist, Oregon Extension Service; C. E. Hill, State Coordinator, Soil Conservation Service; A. L. Hafenrichter, Soil Conservation Service, Pullman, Washington; M. M. Hoover, In Charge Soil Conservation Nurseries, Washington, D. C.; T. R. Stanton, In Charge, Oat Investigations, Division of Cereal Crops and Diseases, Washington, D. C.; Don C. Mote, Entomologist, Oregon Experiment Station, Corvallis, Oregon; Kenneth C. Gray, Field Entomologist, Oregon Experiment Station, Corvallis, Oregon; Sam Sloane, Agronomist, Soil Conservation Service, Spokane, Washington; A. W. Jacklin, Jr. Agronomist, Soil Conservation Service, Spokane, Washington.

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