WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR THE WEEK ENDING NOVEMBER 1, 1930.

HUNTLEY:

Warmer weather during the past week has benefitted fall-sown grains to some extent. Although stands have not increased to any noticeable extent, the growth of plants already up has been quite marked.

The ground is slowly drying off but the process has been retarded by one light shower and nightly freezing. Field work has been resumed on the lighter soils of the station but the land is still a little too wet to work well.

Maximum temperature 67; minimum 20; precipitation, .09 inch.

SHERIDAN:

With the exception of one day, fair weather prevailed over the entire week. Weights were obtained on the corn varieties and the remainder of the sorgo, completing that phase of the seasons work. The remainder of the station work consisted principally in completing winter quarters for hogs.

Maximum temperature 70; minimum 17; precipitation, .07 inch.

MANDAN:

Arboriculture

All the nursery tree stock to be dug this fall has been pulled, inspected, and fumigated by Professor Munro, State Entomologist. Heeling in for the winter will be completed to-day.

Horticulture

Nursery and seed-bed material has been dug and heeled in for the winter. Seeds and small fruit cuttings are being planted. Work is progressing in pulling with a tractor the larger trees which are to be discarded. A large block of Golden currants in the south field was dug, and the bushes were discarded, except for selections. The selected bushes were divided and will be given a further test.

BELLE FOURCHE:

The weather throughout the week has been clear and settled. The days have been comparatively warm but the nights have been quite cool. A high, disagreeable wind prevailed for a few days, but conditions as a whole have been very favorable to the performance of field work.

Corn stover and sorgo from the dry land rotation plots were weighed, and the yields of both crops were slightly greater than their respective 21-year average yields. Potatoes were harvested, and yielded an average of 73.6 bushels per acre, but less than 50 per cent of the tubers were of marketable size.

Maximum temperature 61; minimum 17; precipitation, trace.

ARDMORE: (Report for the week ending October 25, 1930.)

The weather during the forepart of the week was cold and threatening, but the only precipitation was a light snow. Field work consisted of digging potatoes and hauling cane. The cane was thoroughly dry when hauled. The yield of potatoes will be up to the average, but the percent of unmarketable tubers will be high. The potato crop was considered to be a failure until the rains in August started new growth.

Beans are still too damp to thresh, but should be ready the first part of next week.

Winter grains have made an unusually good fall growth. The stand on all plots is good.

Returns on the steers shipped to Omaha were received. All except two of the steers sold for $8.00 per hundred.

The rainfall for October to date is 3.58 inches. Freezing weather has destroyed most of the weeds, and the soil will have more moisture present next spring than has been the case for several years.

Maximum temperature 70; minimum 23; precipitation, .01 inch.

ARCHER:

During the week the weather has been dry and clear with typical fall temperatures. A few days have been rather windy.

Work at the station has consisted of husking corn from the plots. The last of the field work except the ridging of the fallow land for winter will be finished to-day.

The snapping of corn in this section is in progress. But very little corn is husked in the field in this section as it is not dry enough to keep when husked.

Maximum temperature 64; minimum 21; precipitation, trace.

AKRON: (Report for the week ending October 11, 1930.)

Some rain was received this past week but not in the amount needed. Work progressed favorably.

The bean varieties and the combined variety and date-of-seeding experiment with beans were threshed. The yields from the varieties were all good, ranging from 10 to 29 bushels per acre, plots replicated three times. The date-of-seeding experiment revealed that the June 16 date was high yielder with all varieties except Great Northern, which yielded highest on the July 2 date. These plots were also replicated three times. This marks the first year that work has been accomplished leading to the finding of the best date for planting beans in this locality.

The second cutting of Sudan grass was largely hauled in and stacked in desirable air-dry condition. This Sudan grass was signally free of pig weeds, of which there were some in the first cutting. This second cutting yielded practically the same as the first cutting, namely a little more than a ton to the acre.

The variety and seedling potatoes were harvested. The yields ranged from 100 to 200 bushels per acre. The soil preparation was early spring-worked small grain stubble land. The potatoes were seeded in listed furrows then covered. These plots were replicated only twice.

Maximum temperature 85; minimum 35; precipitation, .25 inch.

AKRON: (Report for the week ending October 18, 1930.)

Light rains were received the fore part of this week, but any rain short of .75 inch to 1.00 inch must be considered inadequate for the actual needs.

Work consisted largely of odd jobs in the interim until the corn and the sorgos became dry enough to haul in. Winter wheat was seeded on squash and cucumber ground on the rate and spacing corn project. The October 15 rate and date-of-seeding winter wheat was made on that date into soil too dry to promise immediate germination. A final clean-up spraying was made of the Poverty weed (Franseria) in the various low areas where an effort has been made during the past three years to exterminate it. The spray used was sodium chlorate. Considerable time was spent in digging a drain through the pasture bordering the rate and spacing corn project. The fresno was used in constructing this drain which will change the natural drainage from over the north end (second and third replications) of the rate and spacing corn project land. Only flood waters at occasional periods are troublesome, but heretofore it has been necessary to keep an open drain through the corn when located on the west series used for this experiment. Under those conditions the second and third replications were high enough that no flood waters stood over the project.

The first hard killing frost of the season occurred the night of the 15th following the light rains just previous.
Maximum temperature 67; minimum 21; precipitation, .22 inch.

AKRON: (Report for the week ending October 25, 1930.)

Weather has been disagreeably cool the entire week, but the days have warmed sufficiently in the afternoons for the grasshoppers to carry on their feeding operations. A start was made towards husking the corn. The first project husked was the rate and spacing project. Yields based on 78 pounds to the bushel ranged from 18.9 bushels per acre on the double spaced rows to 42.1 bushels per acre on the thickly planted corn on the regularly spaced rows. Other work consisted of constructing 10 new pig feeding pens for the coming winter's pig feeding experiment, and starting the cleaning out of the eight lamb feeding pens.
Maximum temperature 73; minimum 23; precipitation, none.

AKRON:

The chilly weather of the past ten days continued well into this week with a temperature of 18 degrees Wednesday night, but still many grasshoppers are noted flitting about during the warm portions of the afternoons.

Good progress was made with current work. The two sheep rotation corn fields and the corn variety experiment were husked. On a basis of 78 pounds to the bushel the sheep rotation fields yielded at the rate of 30 and 24.6 bushels per acre. The corn varieties were sacked in individual sacks for shelling and weighing at a later date when they are absolutely air dry.

The fall-seeded small grains are in a spotted condition here on the station. Generally, that seeded on fallow has progressed slowly, until it is in a fair condition for going into the winter. All that has been seeded on other preparations is only now emerging, following that light rains of the past two weeks, and there is but little hope that it will get large enough to offer much protection in case soil blowing becomes a factor next spring. Soaking rains are seriously needed before winter.

Maximum temperature 71; minimum 18; precipitation, none.

COLBY:

Ideal fall weather prevailed throughout the week. The sky was clear most of the time. The days were fairly warm, but freezing temperatures were recorded every night. There was no precipitation, and the corn and sorghums in the shock are curing nicely. A start was made on husking the D.L.A. corn plots. The fodder is quite dry, but the corn still contains an excess of moisture.

The late fall plowing and listing was done the forepart of the week. The moisture conditions were ideal. The winter wheat stubble plots had such a heavy growth of volunteer that much of the soil turned up in long strips like sod behind the lister. The straw and manure were applied as top dressings in Rotations 554, 555, and 556. All the plots that were fallow this year and were not seeded to winter wheat were gone over with the duckfoot to roughen the surface for the winter. A lister furrow was run through each alley and in the edge of each roadway along the edges of all the plots to guard against possible soil blowing.

Maximum temperature 70; minimum 22; precipitation, none.

GARDEN CITY:

Very little field work was done the past week on the dry land project. Odd jobs around the office, taking additional soil moisture samples after the heavy rains in October and working on office records occuppied most of the time.

The 7.12 inches of rain that fell in October did not soak down as much as was expected from the appearance of the soil samples. There was some change in sub-soil moisture in the six-foot zone, but it is not up to the optimum moisture content yet.

Clear, quiet days with hardly any wind has been ideal for outside work the past week. Nights have been cool and the days fairly warm. General station work has consisted of filling a silo, cutting late sorghums and cleaning up the last of the field work. Some cultivating of fallows is being done to prevent blowing later on.

Maximum temperature 74; minimum 29.

HAYS:

Night temperatures have dropped to or below freezing nearly every night during the week, and the day temperatures have, generally, been cool.

It has been a good week for field work except for being a little cool and raw in the early morning.

The heading of the sorghums on the project was completed during the week. The stover on the project was harvested, weighed green (moisture samples having been taken at the same time), and consigned to the silos. Threshing will be done as soon as the headed grain is sufficiently dry to thresh well.

Soil moisture samples are being taken to-day to find the soil condition after having had the wettest October in 63 years. The total precipitation for the month was 5.25 inches.

Hays, continued:

Feed cutting, stacking, and filling of silos has been in progress all week on the general farm. Also construction work on the new office is being pushed. The basement walls and floor and the first floor (all concrete) have been run, and brick laying commenced yesterday.

Maximum temperature 71; minimum 21; precipitation, none.

TUCUMCARI:

A light frost on the morning of the 29th, followed by another the 30th, found practically all crops shocked or headed. Leaves on all standing crops were killed, but numerous trees show no effect of the frosts.

Piecemeal harvesting and other work were performed during the week. A quantity of excellent Sudan seed was procured from five acres of increase land, the separator was adjusted for threshing milo and a few plots threshed, and variety corn plots husked and weighed.

Portions of some late variety grain sorghum plots remain to be headed, for portions of plots were cut with the binder just before frost. It is hoped early headed milo, now in baskets, will be sufficiently cured to thresh next week.

Precipitation during the month was 2.44 inches or about one inch above normal. The total for the year is now 11.77 or a deficiency of just four inches.

Maximum temperature 76; minimum 31.

BIG SPRING:

The usual rainy spell, which has been so prevalent during the past month, occurred during the first two days of the week. Only .44 inch of rain was received during this time, but it was enough to stop field work for two days. A frost threatened one night this week, but 36 was as low as the thermometer registered.

Big Spring, continued:

Station work has consisted mainly of heading milo in an increase field and heading kafir from some of the dates. With the exception of a July 1 date of sumac, all forage and grain sorghum plots have been harvested. Peanuts in the rotations are being dug to-day. The yields of nuts this year are going to be considerably lighter than usual.

Maximum temperature 83; minimum 36; precipitation, .39 inch.

LAWTON:

Clear weather since October 27 made the resumption of field work possible on fields that have become dry enough to permit seeding and plowing. A good many farmers are still preparing seed-beds and making late plantings of wheat.

Several frosts occurred the latter part of October, but none were heavy enough to do much damage. The first heavy frost that killed sweet potato vines, most of the cotton leaves, and damaged the second growth of sorghum crops was recorded on the morning of October 31. The minimum temperature remained low during the night, and 32 degrees was recorded. This should, in all probability be regarded as the first killing frost of the season.

October seedings of small grains and fall-seeded alfalfa made but limited growth during the prevailing cool weather in October. Most farmers are of the opinion that warmer weather is needed for satisfactory growth of small grains, except those that were planted very early.

The wheat variety test, the third seeding of the winter oats variety test, and the winter barley variety test were planted October 27 and 28. Wet soil prevented these seedings at an earlier date.

Cotton picking has progressed steadily during the good weather of the past week. The present picking will complete the work on practically all fields. A few small bolls will not mature, but the percentage of these late undeveloped bolls is unimportant.

The total precipitation for October was 9.74 inches or 6.89 inches above normal. Total precipitation from January 1 to October 31 amounts to 23.16 inches.

N O T E:

The Weekly Station Reports will close for the present season with the issue containing reports for the week ending November 15.

WEEKLY STATION REPORTS

OF THE OFFICE OF

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U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR THE WEEK ENDING NOVEMBER 8, 1930.

JUDITH BASIN:

The weather for the past two weeks has been relatively mild for this time of the year. The warm weather and the abundant supply of moisture which fell during October has germinated the winter wheat on disked corn ground, and now all of the winter wheat and winter rye are in good condition for winter.

A few farmers have taken advantage of the mild weather to seed some additional acreage to winter wheat.

Work at the station has consisted of some repair work about the buildings, hauling feed for livestock, cleaning seed, etc.
Maximum temperature 69; minimum 25; precipitation, none.

HUNTLEY:

Higher daytime temperatures during the last few days have benefited winter wheat. Stands have increased and the first plants to come up have begun to tiller. The wheat also has a darker and more healthy color. Winter rye has also made considerable progress during the week, and on some plots the stools nearly cover the ground.

The warmer weather has also encouraged a second fall growth of some of the more hardy weeds such as fan weed and dandelion, many plants of which may be found in bloom. Brome-grass has resumed growth, and the plots seeded last spring would furnish very good grazing now.
Maximum temperature 72; minimum 17; precipitation, none.

SHERIDAN:

Fair weather prevailed over the entire week. Only miscellaneous work was accomplished on the station. Some Russian thistles raked before plowing were burned, and some of the thistles on the rotation field are being raked. Considerable fall plowing is being done in this section, and more winter wheat has been seeded lately. The October 16 seeding of winter wheat on the station has sprouted but has not yet emerged.
Maximum temperature 72; minimum 18; precipitation, none.

MANDAN:

Agronomy

The past week has been mild and favorable for all outdoor work.

All fallow plots and fallow in field P were duckfooted during the week. This late cultivation was done to kill peppergrass which had come on thick this fall because of the fall rains. The cultivation also put the fallow in good condition for winter.

The rainfall for October was 1.85 inches, which was nearly an inch above normal. The total for the year to date is about 1.33 inches above normal.

Discarded hardwood and fruit trees are being pulled with a tractor or dug out and the land prepared for further plantings.

Maximum temperature 63; minimum 13; precipitation, none.

ARCHER:

During the past week the weather has been bright and clear. The temperatures have been mild and pleasant.

Work at the station has consisted of the final grading of the road to the Lincoln Highway, gathering sunflower heads for seed, and painting and repairing some of the buildings.

Mr. W. K. Williams, of the U. S. Forest Service, and Mr. W. O. Edmondson, Extension Forester of the University of Wyoming, were station visitors November 7.

Maximum temperature 67; minimum 23; precipitation, none.

AKRON:

The past week was favorable for field work and reasonable progress was made towards the completion of the year's experimental work.

Akron, continued:

No rains of serious consequence have been received, and the ground still remains too dry for the best interest of the winter wheat crop. Winter wheat seeded September 19 on station corn land has only recently started to emerge and does not yet show full stands (November 5). The September-October period has produced only 1.22 inches of rainfall, a little less than half the 22-year average for the same two months. This region is still looking for a good soaking rain before deep winter sets in.

The husking of the rotation corn has been in progress during the past week. Yields run rather uniformly between 35 and 40 bushels per acre. The lamb feeding pens are being cleaned out in preparation for the winter's feeding operations. The threshing of the grain sorghums of the variety experiment was also current work for the past week. Yields are good. Of 20 varieties threshed, the first five in the order of their yield are: Yellow kafir, C. I. No. 902, 58.9 bushels per acre; Kafir Selection No. 6, 56.2 bushels per acre; Grohoma, 52.9 bushels per acre; Dwarf Freed, H. C. 2521, 52.5 bushels per acre; Pink Freed, Tribune 14, 49.3 bushels per acre. These yields are the averages of four plots, two on fallow and two on small grain stubble, except Grohoma which is the yield of one plot on fallow.

Maximum temperature 70; minimum 18; precipitation, none.

COLBY:

This has been another ideal fall week. No precipitation has fallen, and there have been hard freezes almost every night. This has put the corn in good shape for husking and has dried out the sorghums so that they will soon be dry enough for weighing if no damp weather intervenes.

The corn plots were hauled in, weighed, and husked. The yields will range between 15 and 40 bushels. The listed corn had much better ears this year than the surface planted corn. It is planned to thresh the sorghums this coming week.

Director Call, of the Kansas Experiment Station, and President Snyder, of the Kansas State Farm Bureau, visited the station Wednesday on their way to the state corn husking contest at Goodland.

Maximum temperature 86; minimum 19; precipitation, none.

GARDEN CITY:

All wheat plots were trimmed the past week. The milo and kafir that failed to produce grain and was mowed, was hauled in and weighed. Some plots will be threshed next week, though there is very little grain on most of them.

Fallows that go through the winter were forkner cultivated the forepart of the week. Following the heavy rains, the surface had become packed and crusted, an ideal condition for soil blowing to start. This is the second and in some cases third instances where we have had to do extra cultivation on fallows this fall.

Maximum temperature 71; minimum 28.

HAYS:

The weather during the past week has been cool and dry with no rain and temperatures ranging between 28 and 73 degrees. All but one night during the week heavy frosts or light freezes occurred.

It has been a good week for field work, such as putting up feed crops on the general farm and threshing of sorghums on the projects. On the dry-land project, the work consisted wholly of late fall tillage, listing and plowing for spring crops or fallow, and soil sampling.

The soil is still fully wet enough for tillage, but the fear of freezing up before the work was done encouraged the going ahead with the tillage.

Winter wheat continues making growth, the fields are all very green throughout this part of the country.

TUCUMCARI:

Beautiful fall weather has permitted harvesting to progress without interruption the past week. The remainder of the corn plots were husked and weighed, and a considerable acreage of increase broadcast sorgo was hauled.

Tucumcari, continued:

All D. L. A. milo plots were threshed and the grain was cleaned early in the week. Yields averaged between 25 and 26 bushels, subject to correction. The high plot produced at the rate of 43.1 and the low plot 17.4 bushels per acre. Ten plots produced over 30 bushels and five plots produced less than 20 bushels per acre.

Nearly all grain sorghum variety plots have been threshed, but yields have not been figured.

Threshing of D. L. A. kafir rotation plots will be begun to-day, November 8.

Maximum temperature 74; minimum 32; precipitation, none.
Precipitation for the year, 11.77 inches compared with a 25-year average of 15.98 inches for this period.

DALHART:

Weather conditions remained favorable for finishing the heading of standing sorghums this week. There still remains some of the shocked sorghums to head. Parts of two days have been devoted to threshing. The first date of seeding for the varieties has been threshed. These yields were the lightest produced on the station this year. While the yields have not been checked, the grain sorghums for the first date ranged from 10.5 bushels for Feterita to 37.3 bushels for Double Dwarf milo. A good start could have been made on threshing during the week but for trouble with the well. A total of two and one-half days were devoted to the well in an endeavor to keep from hauling water. This time should have been devoted to threshing as the weather was ideal.

Winter wheat and rye will go into the winter in excellent condition. Wheat seeded the 27th of October is emerging to a good stand to-day.

Milo heading is in full swing in the surrounding country. Yields are much lighter than last year but are about as expected.

The first killing frost was recorded on the morning of October 30 with a temperature of 27 degrees. A few of the hardier plants show no frost damage as yet.

Dalhart, continued:

Rye seeded in tree plantings and vineyard is apparently going to get large enough to prevent winter soil blowing.

Maximum temperature 73; minimum 31; precipitation, none.

BIG SPRING:

Weather conditions were ideal for field work during the first part of the week, but a slow, drizzling rain started Friday and has continued to the present writing.

Threshing of grain sorghums was started yesterday, but had to be stopped after only a few plots had been run through. The cloudy weather which preceded the rain had made the kafir heads so tough that the grain would not thresh out well. An increase field of Sumac and Hegari was harvested during the week. Although the yield from these crops will be light, a fine quality of feed will be obtained.

Maximum temperature 75; minimum 34; precipitation, .16 inches.

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U. S. DEPARTMENT OF AGRICULTURE

(C O P Y)

November 19, 1930.

MEMORANDUM TO HEADS OF OFFICES.

Gentlemen:

Dr. Clyde E. Leighty, Principal Agronomist in our Office of Cereal Crops and Diseases, has been transferred to the Office of Dry Land Agriculture as Principal Agronomist in Charge of Dry Land Agriculture, vice the late Prof. E. C. Chilcott.

Very sincerely,

sgd. Wm. A. Taylor

Chief of Bureau.

REPORT FOR THE WEEK ENDING NOVEMBER 15, 1930.

HAVRE:

The fall season at this station has been quite favorable. Precipitation in September amounted to 1.69 inches, with the normal 1.28 inches. The precipitation in October this year was .55 inch as compared to the normal of .65 inch. As indicated by tender vegetation, the first real killing frost occurred October 15. However, there were five days beginning September 23 when the minimum temperature was near freezing. There was another short cool spell beginning October 4.

With the dry summer, crops were all well advanced and field work was completed sooner than usual. Fall plowing, which was done before the rains began, was rather rough, and it was necessary to run over part of it with a disk after moisture fell. Russian thistle growth in the stubble was not so heavy as in some years, but there was considerable growth which had to be raked off after freezing weather.

Early dates of seeding winter wheat made very good growth this fall. Fallow ground contains less moisture than any year since 1926. With the moisture of this fall quite a growth of small mustard plants started on many fallow fields.

The deciduous trees in the shelter belt shed their leaves early this year as a result of the drought, but it appears that the wood is well matured. Fall moisture should be sufficient to carry the trees through the winter. A few of the evergreens have died, but it does not seem probable that this was due to the drought. A few replants were made in the fall in the landscaping about the buildings.

Range conditions over this section of the state improved during the fall. Stockmen are selling close, but there apparently has been very little undue sacrifice of breeding herds. Hay prices are fairly high, especially as compared with grain prices.

HUNTLEY:

Field work was possible during the first half of the week, but the last three days have been more or less stormy and temperatures have dropped rapidly. The minimum temperature so far this fall was recorded this morning when the mercury reached -12 degrees. The ground is covered with snow, so it is doubtful if freezing to any significant depth occurred.

Fall sown grains made some progress during the warmer weather early in the week. The stands of winter wheat are more noticeable now that most of the volunteer spring grains have been killed. These stands are thin, but the plants look vigorous on most plots.

Maximum temperature 71; minimum -12; precipitation, .34 inch.

SHERIDAN:

The weather continued fair over the first of the week, but the last of the week was much colder, with light snow. Thistles were raked and burned from the remainder of the rotation field and from a large part of the remainder of the station. The October 16 seeding of winter wheat just began to emerge as the cold weather arrived.

Maximum temperature 72; minimum 13; precipitation, .08 inch.

DICKINSON:

Mild and generally fair weather continued through the first half of November. The minimum temperature registered so far this fall was 10 degrees on October 18. Freezing occurred on most nights, but the ground thawed out nearly every day. Precipitation during the 10 months ending October 31, amounted to 12.97 inches, giving a deficiency of 1.61 inches when compared to the 38-year average for these months. Rainfall during September and October was a little above average, so that vegetation is starting into the winter with the soil moisture about normal.

Dickinson, continued:

Work during the week consisted in hauling lignite, cleaning seed, and miscellaneous clean up jobs.

Visitors included Director P. F. Trowbridge and Mr. L. F. Gieseker, Associate Agronomist, in charge of Soil Survey, Montana Experiment Station.

Maximum temperature 72; minimum 15; precipitation, .01 inch.

MANDAN:

Agronomy

The past few days have been cloudy and cooler. Snow has been predicted for two or three days, but so far none has fallen here.

Corn husking will be completed to-day. The average acre yield will be around 20 bushels. The yields run from about 12 to over 30 bushels per acre. The lowest yield is on fall plowing and the highest on fallow. Fall plowing will average about 19 and spring plowing about 21 bushels per acre. The average yield will be about six bushels per acre higher than in 1929.

Maximum temperature 66; minimum 21; precipitation, none.

Arboriculture

A total of 230 pounds of boxelder seed and 328 pounds of green ash seed, picked this fall, has been cleaned and stored. Seventy-five pounds of ash seed have been stratified for the winter. This seed will be planted next spring with an equal quantity of seed that has been stored dry over winter in order to determine whether stratification has any appreciable effect in hastening germination of the seed. All the ash seed has been infected with a larvae that bores into the fruit, eating the entire kernal. Fumigation of the seed with carbon bisulphide is now taking place. Samples of the larvae have been sent to the State entomologist for identification.

Mandan, continued:

Arboriculture, continued.

A tabulation of nursery stock pulled this fall shows the following seedlings on hand available for shelter belt demonstration planting next spring:

Northwest poplar	44,860
Green ash	59,300
Boxelder transplants	5,660
Chinese elm	7,200
Siberian pea tree	82,700
Chokecherry	1,850
Russian olive	38,220

On account of the small size, the one-year boxelder seedlings were left for another year. Arrangements to obtain the necessary stock of this species for shipment next spring are now being made with the North Dakota School of Forestry, Bottineau.

An estimated field count of conifers available for shipment next spring gives 10,000 composed of the following species: Colorado blue spruce, Black Hills spruce, Norway pine, western yellow pine, Scotch pine, and jack pine.

Field work for the season has now been completed with the exception of making Northwest poplar cuttings. Material for this purpose has been cut and stored in the ice house.

Horticulture

Fall work is almost completed. Favorable weather has enabled us to pull all trees in the breeding blocks which are to be discarded. Seeds and cuttings have been planted.

Work remaining to be done includes some fall plowing, mulching of young trees, planting of seeds from crosses, and moving tubbed trees to the root cellar.

Mandan, continued:

Horticulture, continued.

It is thought that most of the fruit trees are entering winter in fairly good condition, except in closely planted formations where some have been weakened by drought.

The vegetable fields have been manured and plowed, flower beds manured and spaded, half hardy shrubs mulched; in short, field work with vegetables and ornamentals is now completed. The season on the whole was unfavorable, but fair yields of most vegetables was had. The breeding work was the least successful, no selections were made of tomatoes, as the fruits and plants were distinctly abnormal in appearance and quality. Considerable intercrossing of strains in the sweetcorn plot produced poor results. About 250 ears were collected for further work in this line. Melons on the whole were most successful. A considerable number of selections both of water and muskmelon were made, some distinctly promising as to better quality and earliness in comparison to the parent strains.

A tulip bed containing 450 Darwin variety Bartigon, was planted on the grounds in late October. This is to be dug and replanted annually in contrast to permanent plantings elsewhere on the grounds, which are only reset every third or fourth year.

ARCHER:

During the week the weather has been mild, clear, and dry, except on November 15 when it turned cold.

Work at the station has consisted of finishing the grading of the road to the Lincoln highway, hauling gravel on a portion of it, ridging the fallow land, and storing corn from the experimental field. The corn had been spread on the ground to dry. The re-roofing of the cement silo is practically complete, and the setting of the new electric plant is in progress.

Maximum temperature 65; minimum 18; precipitation, trace.

[illegible]:

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

AKRON:

Fair, open weather prevailed throughout the past week, and good progress was made towards completing the harvesting of the experimental projects. Kansas Orange, Sourless, African Millet, and Leoti Red sorgo were deemed too wet to haul in for forage determination from the general forage sorghum variety experiment. Six plots of rotation corn remain to be hauled in and husked. Another week or ten days should place this station in very satisfactory position so far as current work is concerned, provided of course that these days are favorable for outside work.

The threshing of the grain sorghum variety experiment was completed, and all of the forage sorghum varieties that were dry enough were hauled in, weighed, and the yields calculated. There was no change among the first five high yielding grain sorghums from what was reported last week. Forage sorghums yielded very satisfactorily. The cleaning-out of the lamb feeding pens was completed, and a good start was made toward cleaning out the winter maintenance pen for ewes. Some of the grain sorghum stover is being run through the silage cutter along with about an equal amount of corn stover and placed in the barn.

To-day, Saturday, opened very cold and threatening. By noon as this is being written clouds have broken so that the sun shines through at times. This locality is still in need of moisture before winter sets in.

Maximum temperature 70; minimum 22; precipitation, none.

COLBY:

Pleasant fall weather prevailed until Friday. Friday was quite windy and dusty. To-day it is colder and cloudy, rainy and snowy. There was no field work done on the D. L. A. project this week. If the precipitation is not too heavy it is planned to do the sorghum threshing the first of the week. The corn on Dr. Bronson's project was harvested, and some of the field corn was husked. The yield will be about 30 bushels.

Colby, continued:

What was probably the largest rural gathering in the history of the Great Plains assembled on the Palmer farm northeast of Norton, Kans., Friday to witness the first national corn husking contest ever held in Dry-Land Agriculture territory. The crowd was estimated at 55,000. The corn out here this year is a revelation even to us and surely must have been to those from east of the Missouri.

Maximum temperature 68; minimum 14; precipitation, none.

GARDEN CITY:

Most threshing was finished on the general station the past week. All dry land threshing was finished the fore part of the week.

Yields in general were lower than usual, although some fallows produced fairly good yields of milo and kafir.

Fall plowing and listing was done the past week. This about finishes field work for 1930. Wheat is making satisfactory growth and will go into the winter in very good condition. Stands are uniform but not heavy. There is practically no volunteer wheat in the various plots.

Corn was shucked the past week. Yields are going to be above normal on fallow and the F and G plots. The G corn plot produced slightly more than the fallow plot, and the quality of the corn was good.

Maximum temperature 69; minimum 30.

DALHART:

Threshing of grain sorghums occuppied the working time during the week. It was too windy for threshing on one afternoon and rather disagreeable on two other days, but increase and seed plots were threshed at those times. There still remains approximately one week's threshing to be done. Some of this is in the bundle yet, so that with favorable weather threshing cannot be

Dalhart, continued:

completed before the end of this month. All rotation milo plots, seed plots, the first and second dates and the fallow planting for the grain sorghum varieties have been threshed. In addition to the above several of the kafir rotation plots (all that were headed before binding), terrace plots, and miscellaneous tillage plots have been threshed.

Yields for the most part are higher than anticipated. The 49 tillage and rotation plots of milo averaged 35.4 bushels to the acre. This compares with an average for the same project last year of 38.2 bushels to the acre and with a 22-year average on the rotation and tillage project of 25.5 bushels to the acre. The low yield of milo was secured on one of the three duplicate F plots and was 12.2 bushels to the acre. The high yield was 60.5 bushels to the acre after fallow and manured. Not enough of the kafir plots have been threshed to estimate the average. Those threshed will average better than the later plots. The low yield of kafir on the plots threshed is 30.8 bushels, and the high yield is 44.8 bushels to the acre. The average kafir yield will be approximately 20 per cent less than milo. That is about the percentage difference between kafir and milo from the five replications threshed from the variety project. The maximum yield of grain sorghum for this season was 63.4 bushels to the acre of Dwarf Yellow milo from the grain sorghum variety project on fallow.

The last picking of cotton has not been made. Yields of cotton were better than normal. The better plots of cotton will yield close to a third of a bale of lint to the acre.

Winter wheat and rye are going into the winter in excellent condition. Apparently sufficient growth of rye will be made on late seedings in the various tree and orchard planting to assist materially in preventing winter soil movement.

It is going to be imperative to roughen all of the bare ground on the station to prevent soil movement.

The minimum temperature for the fall to date has been 27 degrees.

Maximum temperature 70; minimum 30; precipitation, none.

TUCUMCARI:

Beautiful fall weather the past week has permitted threshing and hauling of crops without interruption. Kafir threshing has been completed. Yields will average approximately 15 bushels per acre for all D. L. A. plots as compared with about 25 bushels for all D. L. A. milo.

Some 15 late date grain sorghum plots remain to be threshed, as do the single nursery rows. Six corn plots are still to be husked and weighed. Considerable increase broadcast sorgo is still in the shock, and a few acres of Beaver milo is still unheaded, to be headed next week.

Fall work, including fall plowing, should be completed by December 1, some two weeks earlier than usual.

The heavy wheat acreage looks very promising, and thousands of cattle are now grazing this crop in Quay county. It is safe to say 10 to 15 head are on wheat where one usually is seen. Hundreds of head from the valley portion of the county have been taken to the wheat fields, and no doubt thousands have come in from the dry areas of Texas for winter pasture. It is very likely that before spring considerable of the crop will be injured by overgrazing.

Maximum temperature 69; minimum 33; precipitation, November to date, none. Precipitation for the year to date 11.77 inches.

BIG SPRING:

With only two days of sunshine during the past week and rainy or misty weather prevailing during the rest of the time, no field work could be accomplished. Threshing, which was halted after one days run, cannot be started again before next week. Temperatures have been warm with no signs of frost, although the normal frost date is several days past.

Big Spring, continued:

A killing frost now would be welcomed by the farmers, as it would hasten the opening of green cotton bolls and thus speed up picking. Work during the past week has consisted mainly of hauling dirt on the station roads and grubbing off a mesquite pasture.

Maximum temperature 71; minimum 44; precipitation, 1.67 inches.

LAWTON:

The weather from November 1 to 15 has been unusually favorable to the prosecution of farm work and conducive to a satisfactory growth and development of fall-seeded crops. Clear skies, moderate temperatures, and with but very few exceptions, a low wind velocity obtained during this period. A few threats of rain beginning the 13th terminated in a rain of .74 inch on the 15th. This rain will soften the surface soil on wheat fields that had been crusted and packed by the heavy rains in October.

Germination and emergence of varietal tests of wheat, winter oats, and barley seeded October 27 and 28 were normal. Subsequent growth of wheat and barley has been sufficient to carry these crops through a normal winter in good condition. Survival of winter oats when planted so late is quite doubtful. Soil moisture conditions for maintenance of small grains during the winter are optimum.

Cotton picking on the station has been practically completed, and about half of the fall plowing on the rotation plots has been done. Approximately 15 acres of spring oats land has also been plowed.

N O T E:

The Weekly Station Reports will close for the present season with this issue.

JUDITH BASIN:

The weather of the past week has been a direct contrast to that of the previous three weeks. Considerable snow fell November 12 and 13 and the temperature dropped to a minimum of -11 degrees on November 14. Wind has caused severe drifting of the snow, although not in a sufficient amount to interfere with automobile travel.

Work at the station consisted of the routine work of the winter season.

Maximum temperature 70; minimum -11; precipitation, .45 inch.