

**DECREASE OF SUN'S HEAT EXPECTED TO AFFECT CROPS.**

The loss of 3 or 4 per cent. of the sun's heat described recently by Dr. C. G. Abbott, of the Smithsonian Institution, may seriously affect this year's crops, according to Dr. John A. Miller, a noted astronomer and director of Swarthmore Observatory.

If Dr. Abbott was correct in his statement and the sun is losing heat, it should not be for long, Mr. Miller believes. Periodically, he said recently, the spots on the sun are at a minimum and when in that condition are accompanied by lessened heat.

"It might be supposed that the presence of sun spots would prevent radiation, since sun spots have been described as immense clouds of dust," Dr. Miller said. "But the opposite is the case.

"Apparently, the presence of sun spots denotes a considerable agitation in the sun and with it corresponding radiation. The agitation is not there when there are no sun spots and there is considerably less heat.

"The phenomenon occurs, however, every eleven years, and there is no reason to suppose that the condition of lessened heat will last for more than a few months. In the past, in the first four of the eleven years the increase in sun spots has been rather rapid. A peak is reached, and the following seven years are marked by a gradual decrease in the number. It is known that there are very few spots at the present time and that would account for the cooler condition of the sun."

The fact that some scientists have supposed the northern hemisphere to be entering another glacial epoch which within a few thousand years will overwhelm the United States with millions of tons of ice would have no bearing on the present condition of the lack of radiation, according to the Swarthmore astronomer.

Evidence of a fresher spring that would coincide with Dr. Miller's belief that the crops this year may be affected by the reduced heat of the sun have been observed by Washington scientists.

The possibility that the West is due for a dry summer is indicated by reports that winter wheat areas on the western fringe of the wheat belt are suffering from lack of moisture, while the Southern States appear to be having unusually heavy rain with correspondingly beneficial effects upon the cotton crop.

Belief that the lessened radiation of the sun would not continue was also voiced by Dr. W. J. Humphreys, professor of meteorological physics in the National Weather Bureau and at the George Washington University. According to Dr. Humphreys, while the sun radiates less heat when the sun spots are at a minimum, the earth conserves and throws off more heat, so that instead of a chilly summer the present cold spring may emerge into a hot mid-summer.

Herbert J. Browne, a Washington statistician, has told a congressional investigating committee that the present year will be cold and freakish, and the precursor of several unusual years, which will culminate in unfavorable weather conditions for crop purposes two or three years hence.

Mr. Browne bases his prediction on observed cycles which record climatic changes in periods of 123 years to 148 years, or to a greater cycle of 271 years, when the most unfavorable weather conditions occur.

The Washington statistician, who is also an authority on climatic changes, based his conclusions on historical data.

Lang and Passion players plan visit.

To save the famous Passion Play of Oberammergau for future generations, Anton Lang three times Christus of the sacred drama, is coming to America. While in this country, Lang and a group of his fellow-artists will be seen in a miniature setting of their beloved village at their work benches and in festival, giving America a glimpse into the every day lives of these simple people during the ten year interval between the plays. The invitation to visit America was extended to the Passion Players by Raymond C. Schindler, of New York, and Peter Michelson.

"Few Americans have any conception of the conditions existing in Oberammergau now," said Mr. Michelson. "Perhaps an insight into these conditions as well as into the sturdy character of these people may be gained from the knowledge that, at the time an offer of \$1,000,000 for a film of the play was rejected, the villagers, in many instances, did not have the money to provide the ordinary necessities of life, and the play committee was desperately considering ways to provide funds for the music and vocal teachers whose work must begin now if there is to be any Passion Play in 1930."

"The receipts from the Passion Play give an idea of what really happened. The price for the best seats when the play opened was 100 marks, the dollar then being worth 200 marks. Twelve years before, when the last Passion Play was given, the same seats sold for about \$2.50. These prices were never increased, and when the play closed in September last, the mark was only worth 2,500 to the dollar. When the receipts were finally turned over to the actors the mark stood at 8,000 to the dollar! Anton Lang worked eleven months in rehearsal and performances and received a total of 27,000. Following the play he visited Munich to have his teeth fixed and the dentist presented him with a modest bill, but it was for 200,000 marks.

"Today conditions are at their worst. Shoes cost not less than 50,000 marks and butter costs 8,000 marks a pound when it can be obtained. Everything else is in proportion and actual living is almost impossible. A recent letter from Mrs. Anton Lang to a friend in the country gratefully acknowledges a gift of \$5 which, she

**LANG AND PASSION PLAYERS PLAN VISIT.**

says, will materially assist in caring for a baby she expects soon.

"It was these conditions that brought the men of Oberammergau to the realization that desperate measures were needed and the way out was finally discovered. The art of Oberammergau is as old, although not so well known, as the Passion Play itself. Its wood-carvers, potters and painters come from generations of wood-carvers, potters and painters. It is doubtful if any other community in the world of like size has as many artists, whose works have won such distinction in the art exhibitions of Europe as have the works of these simple people.

"Germany can no longer afford these luxuries and were it not for the orders for handiwork that came at the time of the Passion Play, the carvers would today be chopping wood in the forests. If an outlet can be found for this work in America, through the medium of an exposition, the problems of the village would be solved. The families would be assured a comfortable living during the trying years ahead, the orphans cared for, the much-needed hospital and schools built, and above all, the Passion Play given again in 1930 in compliance with the vow made over three hundred years ago.

In other words, the Oberammergauer was offered the opportunity to work out his own salvation."

According to Mr. Michelson it is expected that the Oberammergau craftsmen, who have united for the purpose of this visit under the name of the Oberammergau Home Arts, will arrive during October. They will visit, in addition to New York, Washington Philadelphia and Chicago.

Neighbors, Attention!

The Keystone class adoption of Modern Woodmen of America, including the camps of Milroy, Millheim, Port Matilda, State College and Bellefonte with over 100 candidates will take place in the Bellefonte armory, Friday evening, May 18th, at 7 p. m. at which time parade will be formed by the M. W. A., of State College and the I. O. O. F. band of Bellefonte.

The committee requests the presence of every neighbor in order to make this meeting a success.

Supreme organizer, Ralph E. Johnson, of Lincoln, Nebraska, and State deputy Wychoff, of Pittsburgh, will be the chief guests of honor.

During the rose festival in Portland, thieves stole two suit cases belonging to a Methodist preacher. When the bandits examined the baggage and found only materia theologica they promptly abandoned the loot. And it was soon recovered, which is something akin to the tale of the lady of the parsonage, waking her husband with the dread news that there was a burglar in the house. The preacher muttered sleepily as he relapsed into unconsciousness: "Well, let him find out his mistake for himself."—Northwestern Christian Advocate.

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**FARM NOTES.**

It never pays to plant poor seed in order to save money. The very best seed obtainable should be planted at all times.

A good insect powder should be put on the currant and gooseberry bushes, to prevent worms getting a start. To delay may mean loss of a crop.

Sows due to farrow should be separated from the herd two or three weeks before the farrowing date and put where they can farrow undisturbed.

Adult canker worms are now climbing up fruit trees to deposit their eggs. To prevent their doing great damage the tree trunks should be damaged with sticky fly-paper or cotton.

During the month of April every Pennsylvania farmer should turn his attention to cleaning out the barn of all wheat chaff, straw and dust so as to get rid of all traces of the angoumois grain moth.

In preparing wool fleeces for market be sure that all tags are removed. The fleece should be carefully rolled and tied, seeing that there are no stray ends. Use a hard glazed twine in the tying; no sisel or binder twine should be used.

Ropy milk is caused by bacteria that grow best at a temperature of about sixty degrees Fahr. This condition, while not dangerous, should be avoided by keeping milk below fifty degrees. Proper care should be used in sterilizing utensils.

The surface soil of the orchard should be stirred as soon as possible after the frost is out of the ground. If the soil is light and friable, harrowing will be sufficient, but if rather stiff or if there is a heavy clover crop, plowing will be necessary.

Practice and observation will soon enable a person who has fair judgment to determine just what trimming the feet of each colt needs and how often attention to them will be required. As a general rule, the feet should be examined every six or eight weeks.

If the peach buds have not yet burst their coats, it is not too late to apply winter strength lime-sulphur for leaf curl control. Apple scab will be bad this year if the blossoms show pink during very wet weather. Do not overlook this application of the "pink spray."

Spraying is of more importance in most orchards than pruning, though there is plenty of room for both. But no one can afford to let the trees go unpruned. The first spray should be applied just when the buds are broken, which means that preparation should be made before that.

Mechanical improvement is as important to soils as is improvement in plant food. It is possible to tell the needs of the soil by watching the growth and development of the crops, and, also, by noting the color and texture of the soil.

Crops require certain plant foods in order to attain certain ends. Those

ends cannot be reached if there is an insufficient quantity of these plant foods available to the needs of the plants. By careful noting what the plant is doing it is possible to find out just what plant food is lacking in the soil or in what there is excess.

Should the crop be making an inferior growth, the soil requires a particular plant food. Should there be an excessive growth, there is too much of that plant food in the soil.

Nitrogen causes necessary growth. But if the plant is given an excessive amount of nitrogen, the production of fruit and grain will be retarded, while there will be an excessive growth. Besides the plant is more liable to suffer mildew, smut or rust. With forage, an excess of nitrogen will give excessive growth.

In the production of fruit and grain, both potash and phosphorus are required. In the maturity of grain phosphorus is especially needed, and in the formation of starch potash is required. It may be known that the available supply of potash and phosphorus is lacking where the production of fruit or grains is inferior, even though the production of stem and leaf is ample. There is a lack in mineral plant foods, especially potash, where soils are excessively rich in organic matter, peaty soils for instance.

Even more reliable than scientific investigations or chemical analysis is the color of the soil itself to tell in what elements it is deficient or what is required. This is no guess work.

Black soils are, as a rule, rich in humus, considerable nitrogen, soluble phosphorus and potash. The humus acts upon the insoluble mineral elements, making them soluble or available.

A mellow black soil over the proper subsoil is rich enough in all the plant foods to grow any of the common crops.

Yellow soils, the color of clay, are lacking in humus, nitrogen and available mineral plant foods.

Such crops as corn or forage do best on soils rich in humus, but they make unprofitable growth on clayey soils. But fruit does best on clayey soils as fruit does not need much nitrogen. On soils rich in nitrogen there is too much growth of green leaf and the production of fruit is retarded.

The texture of the soil is also a good indication of what is required. Humus makes mellow soils, consequently a soil that is hard and compact is one that is deficient in not only humus, but also in nitrogen and soluble mineral elements. Even if deeply plowed and well pulverized, after a heavy rain such soils will run together, become compact and nearly as hard as they would have been had they not been plowed. Naturally, such soils require humus and probably are deficient in all of the plant foods in their available supply.

The requirement of all soils may be supplied by natural or artificial means. The natural way may be by application of manures produced upon the farm and by rotation of crops. The artificial way is by the use of commercial fertilizers.

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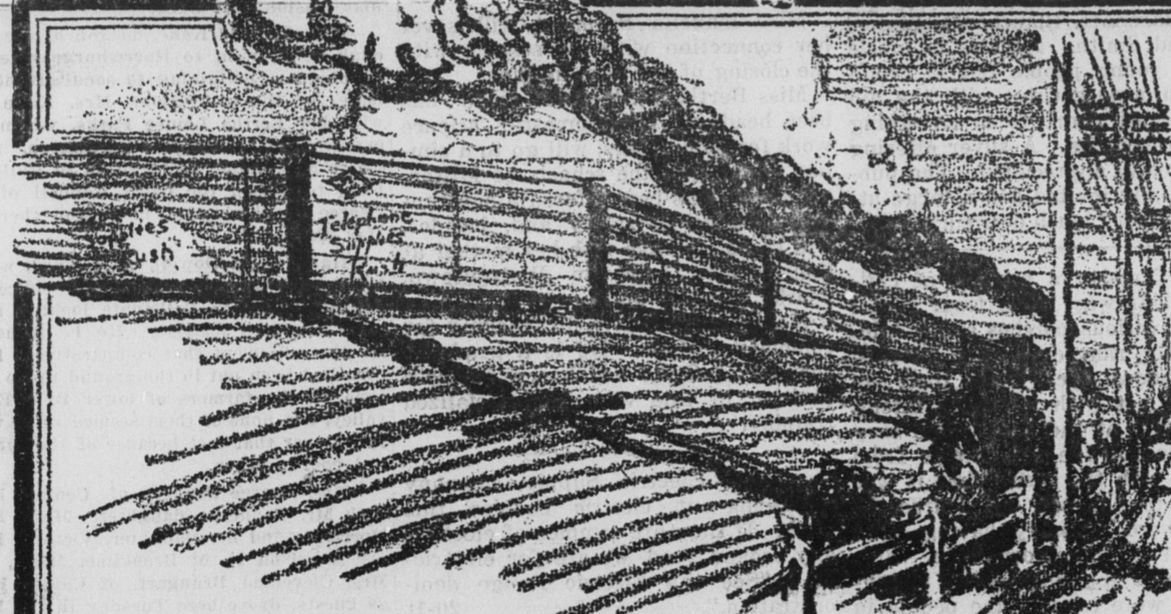
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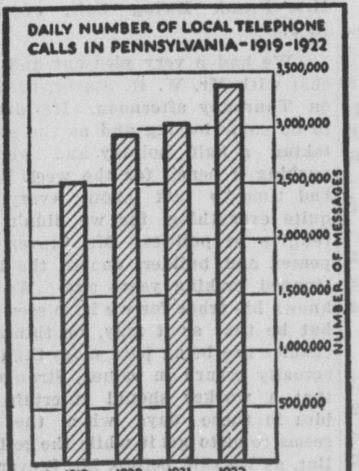
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