BIG CROPS POSSIBLE FALL OF RAIN IS SMALLEST

Conservation of Moisture Is Placed Ahead of Irrigation.

Dry Farming is Most Important Issue, Says Prof. Shaw-Rotation, Fallowing and Scientific Guitivation Productive.

"Dry farming is the greatest prob lem that confronts the people of the West today," recently declared Prof. Thomas Shaw, who was in Control Oregon recently investigating cond tions relating to that purticular branch of agriculture. Professor Shaw has been at the head of the deparment of animal husbandry at the Uni versity of Minnesota since 1975, 3nd de the author of numerous books on warious phases of scientific farming.

"In comparison with dry farming the mining industry, important as It is, dwindles into toxignif tance," Prof. Shaw continued. "The problem of in rigation is great, yet when irrigation has done the best it crin do, not more than 2 per cent of the acts land in one We .. can be affected. All of the remaining portion, excluding forest areas, must be made to produce crops with dry farming methods.

"Conservationists should devote some of their time and energy to the conservation of moisture in the soil The value of the rain that falls during April, May, June and July on the fands of the semi-arti West, if properly conserved, is more than that of all the other material interests com-

Professor Shaw said that his expe rience had shown that good crops of all kinds of grain and some vegetables ean be obtained on summer-fallowed land, properly prepared, in seasons of unusual drought, and that very large yields may be grown in a season when the rainfall is more than normal. On account of the more open character of bench lands, such areas have produced more bearily than the lands be side the streams, he said. He referred to the record of the bench lands in Montana, to illustrate this point:

"It is hazardous," he continued, in pointing out the methods of dry farming that will not succeed, "to grow a erop of grain in these bench lands, when they have been plowed in the spring and the crop sown the same If the season should prove moist a good crop may result, but if it should prove dry it will assuredly fall, and the failure may be complete.

He said that the experiment had taught him that lands devoted to a cultivated crop could be followed with a cereal crop with fair return to the grower. The process of cultivation up for this method, be pointed out, was not far different from that employed when coltivating the summer fallow The difference came in the subtrac-tion of moisture from the soil when growing the cultivated crop. question whether enough moleture would remain to assure a fair crop has been brought up, but Professor Shaw said that at the experiment stations he had grown spring wheat of the durum variety after corn, while beside them were wheat plats started after the bare fallow. In every instance the wheat was stronger and more promising after the curn than after the bare fallow. He said that the explanation of this appearent omenon was difficult, but account ed for it in the fact that the cultiva tion of the corn probably stirred the soil more deeply than the harrow used in the summer fallow, thus liberating more will fertility.

The crops that may be grown on dry farming lands may be divided into three classes—cereals, cultivated crops and alfalfa," be said. "Among the cereals winter wheat is beyond all comparison the most important, for beard. the reason that it is the surest crop that may be grown and that it is of the highest money value because of the large yields obtained. Some areas have grown 60 bushels to the acre. The average yield is not less than 25 ushels. Durum wheat is, next to wintor wheat, the best money crop that can be grown. It will not bring so high a price in the market, but it will more than offset the lack in this respect by the increased yield.

The third crop in money value is flax. This is better adapted to spring breaking than any other crop. Speltz, baries and oats have also been altocessful as spring crops. Both spelts and white holless barley mature early, a post mortem examination. and this means that they are less itable to be injured than some other erons by the dry weather that usually eccompanies the maturing of grain, The out crop calls for more moisture than any of these.

"The cultivated crops that may be grown are corn, potatoes, beans and field roots. Of these, corn for fodder is by far the most valuable and important. This will be the great cultiwated crop of the dry country up to an elevation of \$,000 feet

"The great reliance for forage will be alfalfa. The farmer in the dry country must depend more upon alfaifs for bay than any other crop. It land country susceptible of cultivation. From one to one and a half tons an moist seasons even large crops will be obtained."

Professor Shaw has made a study of the rotation of crops so as to obtain the best results, and has reached the conclusion that a part of every fry farm should be fallowed each year, that a part be devoted to cultivated crops, and the remainder to sifalfa and pasture. The most profitable rocrops on the cultivated land.

1910 Will Be Known as "Year of Drought"-Light Precipitation and Dry Spells Occur.

By PROT LEWIS A MERKILL Agron-omist in Charge of Der Farming in

The year of 1910 will be known in dry farming bistory as the "year of Over practically the endrought." tice west the precipitation has been the smallest in thirty-six years. Being the first year of extreme drought since the organization of the Dry Farming Congress, the experiences should be far-reaching.

These years of light precipitation and long continued dry spell have occurred at intervals ever since the elimatic history of this section has been known. For more than thirty-six years we have a record of the precipitation at Salt Lake City, and during all this time there have been few occasions when the precipitation has been less than twelve inches, and this has occurred in only six years. Fortunately, too, there years of drought do not come in succ. slop, the dry year is usually preceded by and followed with a year of heavy precipitation. As an illustration of this the following table of the precipitation at Balt Lake City seems conclusive.

Year.		Inches
1879		13.11
1890	***********	19.54
1400	100010000000000000000000000000000000000	
1889	***********	
1899	nagana, pakasan sa	19.25
1891	***********	15.92
1999		17.57
1500		
1901		
1909		15.68
1909		arribs

this was to be a critical year in dry farming, since the usual storms of April and May did not materialise. and for that reason experts in dry farming in Utah made an extra effort to collect statistics in relation to dry farming in every portion of the state. Representatives from the experiment station visited practically every county and studied the question in a most comprehensive way. These statistics have been compiled and the conclusions reached are most interesting. From every portion of the state comes the same story; when the harverting season is over and the returns at hand, the doctrine of scientific soil culture was confirmed and the principle of a rational method of securing crops without irrigation was cerublished.

in Utah, where the rainfall is never very high, a variation of an inch or two one way or the other may produce striking results, and such variations frequently occur. The records rovering a number of years show, lowever that on the average the summers are very dry, and there are usually long dry periods in September and October. With these facts in mind, it is plain that the grain should he planted in such a time as to insure the crop against possible fil effects of the dry spells which can reasonably be expected. The undesirable influences of low and varying temperatures common in the month against. There will undoubtedly be cases in favor of early or of late planting but for a practise to be followed through a series of years the medium will likely prove the most dependable:

The year has been prolific in results in relation to the rate of seeding dry farm grains. In years of ample rainfall a bushel or even five pecks may be sown without danger: there is a deficiency, however, there is danger in using this amount. Three pecks per acre has this year produced satisfactory results from every farm from which we have

GENERAL FARM NOTES.

Hens will do well on almost any kind of food if given enough of it. A cough in a hog can usually be traced to one of three things: dust, worms or cold.

Feed cut roots and vegetables to your hens in winter and watch your poultry profits increase. Give the horses more care and

warmer quarters, thus saving highpriced feed and horseflesh.

There is only one way of positively diagnosing bog cholers and that is by

These cold, frosty nights are expensive to the dairyman who leaves his cows out-of-doors. Cow comfort pays. It is time enough to mulch the strawberry bed when the ground freezes hard enough to hold up a

There are many troubles of swine that are called hog cholera which have very little resemblance to that disease

Fording a lot of dry or nearly dry cows in the winter is almost as wasteful as keeping up roaring fires in the house all summer

The introduction of strange birds into a flock often serves to bring can be grown on nearly all the bonch | fresh starts of all kinds of vermin to a perfectly clean flock,

All summer the hens have free run sore may be grown each year, and in of the yard and eat much of successent roots and vegetables. In the winter they want such food but do not get

Travelers observe that in Holland the cows are always scrupulously clean, winter and summer. If we can not beat the Dutch we ought at least equal them.

Never let the cream become sharply acid nor whey at the bottom of the tation, he says, will grow winter wheat jar. It ought always to be smooth, on summer fallowed land and spring velvety and mildly acid and pleasjar. It ought always to be smooth, ant to taste.

\$3.50 RECIPE CURES WEAK KIDNEYS. FREE

RELIEVES URINARY AND KIDNEY TROUBLES, BACKACHE, STRAIN-ING. SWELLING, ETC.

Stops Pain in the Bladder, Kidneys and Back.

Wouldn't it be nice within a week or so to begin to may goodbyn forever to the scalding, dribbling, straining, or too fre-quent passage of urino; the forebrad and the back-of-the-head arbite the stirring and pains to the back; the growing musels weakness; spots before the syor; yellow skin; stuggtab bowels; swellen sys-lide or ankine; log cramps; unnafural short breath; slerplessness and the de-

I have a recipe for these troubles that you can depend on, and if you want to make a QUICK RECOVERY, you ought to write and get a copy of it. Many a doctor would tharge yes \$1.50 just for writing this prescription, but I have it and will be glad to send in to you entirely free. Just drop me a line like this: Dr. A. E. Bobinson, K-96 Lock Building. Detroit. Mich., and I will send it by re see when you get it, this recipe contains great healing and puls-comparing power. It will quickly show its power once you use it, so I think you had better see what it is without drivy. I will send you a free-yes can see it and cure yourself at home.

Blue Monday.

"Do you know why we call this day Blue Monday!" "Maybe it's because so much blue-

ing is used "-Judge.

TO DRIVE OUT MALARIA
AND HOLD UP THE STATEM

A Sounding Nome. "Who is that girl in furs who seems to be the big scream?"

"She? Ch. she's our sleigh belle." Constitution course and aggravates many

serious diseases. It is thereughly cired by Dr. Pieros's Piessant Pellets. The favor-ite family laxative. The Kind. "I think that chauffeur had great

nerve to make love to his employer's

daughter. "So be had-motor nerve."

The Patient Townsmen. "So you got to work in spite of the

"Yes. But I don't see why the city folks should not follow the example of country people and put up a strong kick for good roads."

Hard-Hearted Judge. The Sympathetic Pal - Wotcher Bill You looks bad; been laid up? Bill-Yes, sort of 'Aven't been outer doors for free murfs.

The Sympathetic Pul-Wot was the Bill-Nuffin'; only the judge wouldn't

We're All Her Friends.

believe it.-The Sheigh.

A pretty story of Miss Ellen Terry and a gallant young playwright has gone the rounds of the Players' club Miss Terry allended in New York the first night of this playwright's latest work and at the end of the third act he was presented to her.

She congratulated him warmly, "It is very good," she said. "Your play is very good, indeed, and I shall send all my American friends to see

with a very low and courtly bow, "my which he is loved and blessed by.— little piece will sell 90,000,000 tickets." | Carlyle.

GOT HIS SOBRIQUET EARLY

"Honest John" Kelly Proved His Right to the Title Long Before Manhood

There have been many stories about the nurser in which "Honest John" Reily, the examples, first got ble nick name. Mr. Kelly himself, according to a new York letter, holds that it came to him naturally, for even as a small buy the purity of his soul shone through his fane. "I think the first time I was ever called 'Honest John' was when I was quite a soungstor, said Kelly. "A man engaged as an ambulstory salesman of tinware observed the ingenuous countenance I presented to the world and balled me 'You look honest, hoy,' said he. 'What might your name he?' 'John,' said L. quite simply. 'John'-just like that Then bold my horse while I go in the salvon and get a drink," said be. And so I held his horse while he went in the saloon and got a drink. But this was on lower Ninth avenue, in a day when the avenue's honors went to the man who could clean the most coos in a given time. By and by the gang came along and beheld that wagon full of tinware. The peddier was detained within by a sure thirst and they took the linware. And then they come back and took the cush ion of the wagon. Eventually, be coming during, they unhitched the wagon and took it away. True to my trust. I stood there, briding the horse, And by and by the peddler came out of the raison and sized up the situation. 'Well,' said he warmly, 'you're Honest John, all right. You saved the horse,"*

Wilson-Do you keep a second girl? Bileon-No; we can't keep the fortythird.-Harper's Bezer.

Quick as Wink.

If your even scho with a smarting, burn-ing sensation use PETTIT'S EYE SALVE. All druggists or Howard Bros. Buffalo, N.Y.

On the Dog.

A small West Philadelphia boy may be an author some day. He has just finished his first essay. It is on a dog. "A dog is a animule with four legs, z tale and pents but he never changes them. He wage his tale when he is gind and sits on S. when he is sorry. A tog is a useful animule because be sites burgiars but he is more trouble than he is worth when he tracks mod on the carpet. A bull dog is the king

TOUGH LUCK FOR BOTH.



Kind Old Gentleman-Why, children, what's the matter? The Twins (in chorus)-Booboo! Everybody sez I looks jest like him!

wealth of a men is the numb "In that case," said the playwright, of things which he loves and blesses,

NOT A PENNY TO PAY MUNYON'S

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We sweep away all doctor's charges. We put the best medical talent within everybody's reach. We encourage everyone who sils or thinks he ails to find out exactly what his state of health is. You can get our remedies here, at your drug store, or not at all, as you prefer; there is positively no charge for examination. Professor Munyon has prepared specifics for nearly every disease, which are sent prepaid on receipt of price, and sold by all druggists.

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Swift's Premium Calendar for 1911

is entitled "The Courtables of American Poetry." It contains reproductions of four beautiful paintings—"John Alden and Priscilla," "Hiswaths and Minnehaba," "Maude Mulier and the Judge," "Evangeline and Gabriel."

We want an loss for our 1912 Fremium Calendar. Send III cents in or a from a far of Sent a Boat Entract, or III Wood Soan wrappers for the g wee what is wanted, that send in your idea for the FIG raileadar. The best bles echo itted and adopted we will pay March Let. 1911, \$25.00 cash. 2nd, 515.00. 4th, \$10.00. Ste and 6th, \$5.00. 7th to 11th, \$2.00. 12th to 21st, \$1.00.

Moreo must be in by February lifth to be considered.

Send the Swin's Premium Calendar for 1911 to day. You will have to have it to get the idea Address Swift & Company 4161 Packers' Ave., Chicago, Illinels

Ended the Controversy. On the steeple of an old Universallet church in Bath, Me., there is a wooden figure of an angel. It is not a remarkably fine specimen of art, and has always been somewhat laughed

about, especially because of its highbeeled shoes. The Bath Enquirer recalls the story that a former pastor of the North Congregational church once accosted a devoted Universalist with the question: "Mr. Raymond, did you ever see an angel with high-beeled shoes on its feet?" "Why, no," answered Mr. Raymond, "I can't say that

I ever did; but did you ever see one

without them?"

The Primitive Man. "Jones is so dreadfully primitive."

"What's his latest?" "Why, we were at the opera house the other night and a stage hand removed a table and Jones yelled 'Supel

supe!" We were dreadfully mortified." "I was at a dinner the other night and Jones sat next to me. When he saw the row of spoons and forks and knives beside his plate he beckened to the waiter. 'Say, boy,' he hoursely muttered. I guess you spilled the spoon

"Well, it's lucky he's rich." "Ain't it?"

Breaking It Gently.

Callahan was stopped on the street by Father Clancy. The good priest's countenance took on a sad expres-

What's this, I hear, Callahan," saked he, "about your breaking Homes Hannah T. Rowe is ninety-one; can's head last night? And the two Mrs. Mary Leighton also ninety-one of you friends for years."

Callahan seemed somewhat taken back. "Sure, I was compelled to do it, your riverence," he explained apolocetically. "but out of consideration for that same friendliness, I broke it gintly, your riverence."-Lippincott's.

Same Thing.

but I know certain people who worry king was right.-Smitt Set. cause of what they have.

THERE ARE OTHERS.



Green-Does he figure much in poli-

Wise-No; he's one of those pellticians who use five-syllable words to express one-syllable ideas.

Old Women in Maine.

Gray has a quintet of ladles whose age is over ninety years. Mrs. Enoch Merrill's age is ninety-nine years and eleven months, while Mrs. Lots B. Small reached her ninety-eighth birthday on November 6, and both of these ladies are bright and active. Mrs. Mary A. Frank was ninety-six last September, and is in her usual health.

The fool said one day in the king's presence, "I am the king!" And the king laughed, for he know that his fool

A week later the king was angry, be cause of an error he had committed Jonkley-You're right: most people and exclaimed: "I am a fool!" And the worry over what they haven't got, fool laughed, for he knew that his And the

Coakley-That so? What have they? It is right to be contented with what Joakley-Nothing - The Catholic we have, but never with what we are -Sir James Mackintosh.

Now About Clean Food

Another Splendid Opportunity to Bring Out Facts

When the "Weekly" which sued us for libel (because we publicly denounced them for an editorial attack on our claims), was searching for some "weak spot," they thought best to send a N. Y. Atty. to Battle Creek, summoned 25 of our workmen and took their sworn statements before a Commissioner.
Did we object? No. On the contrary, we

helped all we could, for the opportunity was too good to be lost.

Geo. Haines testified he inspected the wheat and barley, also floors and every part of the factories to know things were kept clean. That every 30 minutes a sample of the products was taken and inspected to keep the food up to standard and keep out any impurtties, also that it is the duty of every man in the factories to see that anything not right mediately reported. Has been with the

Co. 10 years. Edward Young testified had been with Co. ill years. Inspector, he and his men exam-ined every sack and car of wheat and barley to see they were up to standard and rejected

H. E. Burt, Supt., testified has been with Co. over 13 years. Bought only the best grain obtainable. That the Co. kept a corps men who do nothing but keep things clean, bright and polished.

Testified that no ingredient went into Grape-Nuts and Postum except those printed in the advertising. No possibility of may foreign things getting into the foods as most of the machinery is kept closed. Asked if the factory is open to the public, said "yes" and "it took from two to three guides constantly to show visitors through the works." Raid none of the processes were carried on behind closed

At this point aitys, for the "Weekly" tried to show the water used was from some out-side source. Testified the water came from Co.'s own artesian wells and was pure.

He testified the workmen were first-class, high-grade and inspected by the Co.'s physician to be sure they were all in proper physical condition; also testified that state reports showed that Co. pays better wages than the average and he thought higher than any in the state.

F. B. Martin, Asst. Supt., testified Grape-Nuts made of wheat, barley, yeast and water. Anything else? "No, sir," Postum made of Wheat, Wheat Bran and New Orleans Molasses. Statements made on his experience of about 10 years with Co.

Testified bakers are required to wear fresh white suits, changed every other day. had never known any of the products being sent out that were below the high standard of inspection. Asked if any one connected with the Postum Co. had instructed him how to testify. Said, "No, air."

Horace Brown testified has been with Co. 9 years. Worked in Grape-Nuts hake shop. Testified the whole of the flour is or uposed of. Wheat and Barley. Attys, tried to confuse him, but be insisted that any casual visitor could see that nothing else went into the flour. Said machinery and floors always kept clean.

So these men were examined by the "Week-ly" lawyers hoping to find at least one who would say that some under-grade grain was put in or some unclean condition was found

Elach and every man testified to the purity As a sample, take the testimony of Luther

Tectified been with Company about 10 years. Now working in the bakery department making Grape-Nuts. Testified that the ovens and floors are kept clean and the raw products as they go in are kept clean. Also that the wearing apparel of the employes has to be changed three times a week.

Q. Do you use Postum or Grape Nuts your self at all?

self at all?

A. Yes, I use them at home.

Q. If from your knowledge of the factory which you have gained in your ten years at the factory you believed that they were dirty or impure in any way, would you use them?

A. I do not think I would. No.

Asked if any one on behalf of the Company had asked him to testify in any particular.

had asked him to testify in any particular manner. Stated "No."

manner. Stated No. All these sworn depositions were carefully excluded from the testimony at the trial, for they wouldn't sound well for the "Weekly."

Think of the fact that every man swore to the purity and cleanliness so that the Atty, for the "Weekly" was forced to say in open court that the food was pure and good.

What a disappointment for the "Weekly!" But the testimony showed: All of the grain used in Grape-Nuts, Postum

and Post Toastles is the highest standard possible to obtain.

All parts of the factory are kept scrupulous-

None of the workmen had been told how to Most of them have been from 16 to 15 years

with the Co. and use the products on their Why do their families use the products, Grape-Nuts, Postum and Post Toastles, that they, themselves, make?

"There's a Reason"

Postum Cereal Co., Ltd., Battle Creek, Mich.