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THE OUTLOOK OF ARIZONA'S POULTRY INDUSTRY

The Mark Our State Will Achieve--Balmy Weather Makes Arizona Ideal For Poultry Raising--Consumption of Products Far Exceeds Production
Arizona Needs More Real Poultrymen

By Geo. E. Voss

Inconsistent as it may seem to the superficial poultry amateur, Arizona needs more poultrymen of the commercial type to get better prices for eggs. Instead of the market being flooded by increased production, there will then be enough men in the business to organize for orderly marketing. Storage facilities will be developed, and, instead of seasonable overproduction, and consequent glutting,

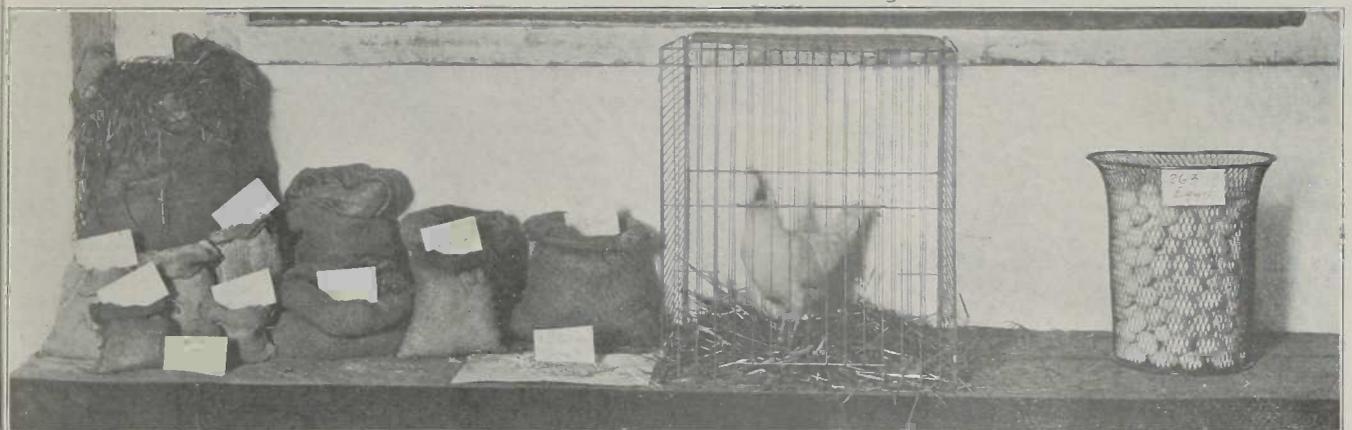
must see the reasonableness of such a claim. Ten months of the year the climate is ideal. The heat is severe the other two months, but proper housing will minimize its damage to the flock.

The balmy spring weather and lack of rain make an ideal condition for the rearing of baby chicks. They can be incubated early and brooded with small losses. The open winters and abundant sunshine make an ideal con-

dition for winter egg production. The hens are outdoors most of the time and an abundance of green feed is always available.

Just now the baby chick industry in the State holds out bright promise in the way of good profits to alert, up-to-the-minute hatchery men. Heretofore most of the chicks have come from California, because of her accredited hatcheries. Arizona poultrymen would buy Arizona baby chicks, if they could get the quality. They believe in home products, and many of them are now buying local chicks even when they know they may not be up to the standard they ordinarily demand. There is a crying need for hatcheries that will turn out quality chicks and improve the flocks over the State. Hatcheries of this sort would increase the interest in poultry and bring poultrymen closer together.

Poultrymen in the State are not producing enough eggs for home consumption and never have. Egg prices show up decidedly favorable when compared with other states. For example, during 1923 egg prices averaged above 40 cents for the year. An



HOW'S THIS FOR EFFICIENCY?—On the left is the 78 pounds of raw material; in the center is the 4-pound living machine and on the right is the 33 pounds of manufactured product in the form of 263 eggs. This hen flew away with first honors in Arizona's last season contest. Owned by W. Griffith, Hayden Arizona.

true merchandizing will come.

Poultry leaders in the Salt River valley and in Pima county, the two centers of the industry in the state, are agreed that the next few years will bring a rapid increase in the number of commercial poultrymen, more organization, and better prices. Indeed, many individual producers are putting all their cards on the table to show their profits and thus induce others to get in the game.

It may sound like an idle boast to predict that Arizona is destined to become a leading state in poultry production in only a few years hence, but when the climate and other production factors are considered even a skeptic

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enormous amount of cold storage eggs pour in every month of the year to supply the larger towns and mining camps. In this connection a survey of production and consumption of eggs in Pima county, carried out by County Agent C. B. Brown, is very illuminating.

Last year Brown found that 198,000 dozen eggs came in from outside the State and 71,430 dozen came in from Arizona outside of Pima county. This made 270,300 dozen eggs coming in from outside the county during the year. Don't get the impression that Pima county has no poultry. The hen population has grown from 10,000 to 25,000 in the last four years, and this

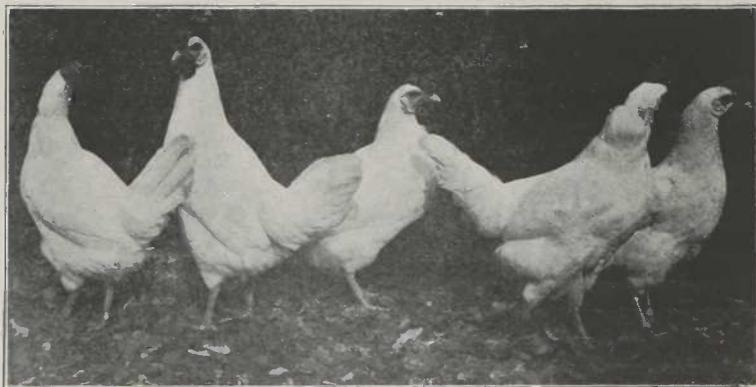
spring ten commercial poultrymen have purchased fully 45,000 baby chicks. It is well to know, too, that Arizona's people are increasing in number as well as the poultry; thus, this means more consumption.

The commercial poultrymen in Pima county have had no trouble in selling all their eggs locally even in the high of the laying season. However, they are following the lead of Maricopa county and spreading the gospel of organization and better marketing. And they want more poultrymen.

The situation in the turkey industry is not promising at the present moment, but the market is certain to come back. How about getting into the turkey industry now when the initial cost of starting a flock will be low? We have the climate and enough open range. Everything considered Arizona can hold its own with any state in the 48 in raising turkeys. More than one man has demonstrated that fact in the last few years. The Casa Grande turkey growers are planning on a scheme of joint marketing in car load lots this fall.

The interest in poultry which exists in the State at present has made for rapid progress in the industry. Where a few years ago a mesquite bush and a patch of blue sky sufficed for shelter now strictly modern houses are found. Improved housing has made for better egg production. Scientific feeding and systematic culling are widely practiced, too, and they have brought more rings from the cash register.

"We want more poultrymen, but we want good poultrymen," a leader in the industry declared the other day. "The haphazard man will find the going hard. We have developed a highly specialized industry and we want men who are willing to study and become specialists with us. To these men success is generally a foregone conclusion."



Arizona's champion pen, which carried away first honors in the Arizona Egg Laying Contest last season. This pen produced a total of 1239 eggs, with an average of 247 eggs per hen. Owner, W. Griffith Hayden, Arizona.

COMPARATIVE TABLE OF CONTEST IN SEVERAL STATES

FINAL REPORT ON CONTEST ENDING OCTOBER 31, 1923												
	Ariz.	Tex.	Mo.	Ark.	N. J.	Cal.	Neb.	Conn.	Ill.	Was.	Pa.	Mich.
Age of contest	1	6	12	9	3	4	4	12	3	4		
Number birds in pen	5	6	5	5	10		10	10		5	5	10
Average eggs per hen ...	186	147	199	177	148	204	130	168	126		175	159
Aver. percent production	51	40	54	48	40	55	35	46	34		48	43
Aver. feed cost per hen	1.77		1.50	1.91								
Profit over feed cost	5.45		3.12	3.38								
Average price of eggs ...	47.4c											

REPORT FOR MONTH OF MARCH, 1924

The following is a more recent comparison of some of the contest for March, 1924, showing per cent production and state in ranking order: (1) Missouri, 72.9%; (2) Arizona, 72.7%; (3) Texas, 72.0%; (4) Oklahoma, 69.0%; (5) California (Pamona) 67.0%; (6) California (Sonoma), 65%; and (7) Colorado, 43%.

What the Poultry Division of the University of Arizona is doing to help the Poultryman on to success. Many problems under investigation.

Give the Poultry Division of the University of Arizona credit for one outstanding achievement made during the past 18 months. It has proven conclusively that Arizona hens can hold their own with the top-notchers of other states in egg production. If you have any doubts about it yourself, study the comparative table presented in connection with this article.

There is food for thought, too, in several other items in the table. For example, one shows that the hens in the Arizona contest made \$5.45 profit per bird over the cost of the feed. Still another item shows that the average price for eggs during the year 1923 was 47.4 cents a dozen. Poultrymen in other states will awake with envy when they read such startling, but true figures. Arizona's showing is the more remarkable, because in the contest at the University at Tucson only hens from the State were entered, while all the other states had entries throughout the nation and some from abroad.

The real purpose of the egg laying contest is to create more general in-

terest in poultry and to show both farm flock owners and commercial poultrymen the value of good stock, up-to-date feeding practices and management.

The 13-acre poultry farm operated by the University at Tucson brings fourth exclamations of surprise from those who visit it. There are 52 separate pens for poultry and this number will be increased to 68 in the next few months, if present plans carry. Every bird on the farm is trapnested and careful records of production and feed kept. These records are used for investigational and instructional work. Ten brooder houses contain brooding equipment of the latest type. The incubator cellar is 40 by 60 feet. In it are work rooms for students. Ten different makes of incubators are in use and 3,000 eggs can be incubated at one time.

The sole purpose of maintaining this elaborate plant is to give students instruction in poultry keeping and poultrymen out in the state information that will help them produce better poultry and make better profits from their flocks.

Many problems concerning various phases of poultry work are under investigation at the present time. Some of these include:

Most economical method of feeding market poultry;

Most desirable nutritive ratio for baby chicks;

Necessity for moisture, turning, cooling in connection with artificial incubation under Arizona conditions—shell texture and position of eggs in the tray also are considered in this problem;

Date of hatching in relation to fertility and hatchability of eggs, rate

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of development, extent of molt and subsequent egg production;

Protein supplements for laying hens and little chicks.

The University is not content with merely operating a plant at Tucson. It sends L. C. Boggs to farmers and poultrymen to help them with their problems. Boggs is called the extension poultryman and about all he does is to travel, talk and work. His day averages 18 hours, often more. Since the first part of the year he has been in practically every locality in the state where poultry is found. The extension work is carried on under the administration of the Extension Service and in connection with the county agricultural agents. Meetings and demonstrations are arranged by the county agents prior to the arrival of Boggs.

Some of the definite lines of work in which the extension poultryman is now engaged are:

The keeping of farm flock records;

Demonstrations to show how to select breeders;

Treatment of diseases, including vaccination for roup;

Demonstrations to show best ratios for egg production;

Operation of brooders and care of baby chicks;

Housing and marketing.

It is interesting to know that the farm flock records for 1923 show a profit of \$1.28 over feed cost per bird.

The extension poultryman also prepares timely hints on poultry keeping and these are circulated every month.

The University poultrymen have expressed themselves to the effect that they are kept on the job to assist farmers and poultrymen over the state. They are always ready to give assistance and welcome the opportunity of being of service to producers.

Breed Improvement Needed.

Professor Embleton of the Poultry Division thinks that breed improvement is one of the outstanding needs in the Arizona poultry industry today. He is centering much of his work on this subject. The egg laying contest is doing much to show that high producing hens are the money makers.

The cost of keeping high producing hens and low producing hens is materially the same, but the income is quite different. It will cost approximately six dozen eggs at 35 cents a dozen to feed a hen a year in either case. In the case of the low producer laying 96 eggs a year there will be a margin of profit of two dozen eggs, or 70 cents. In the case of a high producer

laying 192 eggs a year there will be a margin of profit over feed of 10 dozen eggs, or \$3.50.

"Improvement in egg production can only be brought about by selection of the best stock and breeding from it, or by purchasing stock from breeders who pursue this practice," says Professor Embleton. "The extra work of selection and trapnesting is costly and men who follow it must be paid for their time and trouble. This is why good stock either in the way of birds or eggs cost money.

"From the viewpoint of the purchaser this class of stock is by far the cheapest inasmuch as they are getting the results and experience of a breeder for a few dollars, whereas the breeder may have been years in getting his flock bred up."

In The Reliable Poultry Journal of March 24, Professor Embleton tells of an experiment he conducted to find out what part the male bird played in either increasing or decreasing egg production. His report follows:

"The flock average in our S. C. White Leghorns ranged from 130 eggs to 140 eggs and no matter what changes were made this could not be increased. At that time four cockerels from a hen which had laid 280 eggs as a pullet were purchased and mated to the flock which averaged 130 eggs. From this mating 70 pullets were matured and then trapnested for twelve months.

"In checking up on the trapnest records at the end of the twelve months period it was found that 25% of the seventy pullets had averaged

216 eggs and the range in production in this group was from 200 eggs to 243 eggs.

"Seventy-seven percent of the 70 pullets averaged 190 eggs each, and but very few remaining went below 140 eggs.

"This increase in production could only have been brought about through the influence of the male, for the birds were in the same houses, getting the same feed, and being fed by the same fender. And the most encouraging part was that the increase was brought about in one generation, thereby assuring quick results. There is no one thing that could be done to increase egg production that would give quicker results than the use of a male from a high producing dam.

"Putting this information on a dollars and cents basis it would mean that if a male from a good producing female was mated to 15 hens in the spring for a period of three months and with a normal spring production of 50%, 169 pullets could be matured by fall from this mating, allowing for all normal losses.

These 169 pullets, according to the results obtained in the experiment, would average 5 dozen more eggs due to this male bird. At 30 cents a dozen this would mean an increase of \$253.50 obtained from these pullets over and above what would have been obtained if this male had not been purchased.

"The above will give some idea as to what can be paid for males of this kind if one is to come out on top financially."

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