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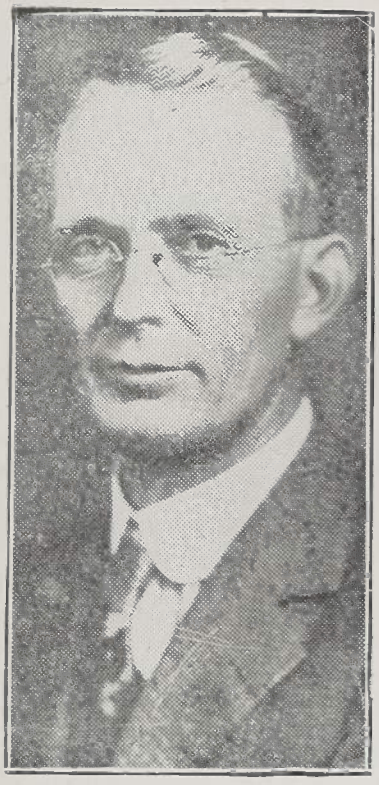
COLLEGE OF AGRICULTURE HAS NEW DEAN

Dr. Ball Is One Of The Outstanding Men In The United States In Agriculture; He Is Well Acquainted With Irrigation Agriculture In The West.

DR. ELMER Darwin Ball, scientist and administrator, who was appointed Dean of the College of Agriculture and Director of the Agricultural Experiment Station by the Board of Regents of the University of Arizona at their August meeting, is expected to take up his new duties about October 1.

Dr. Ball is no novice at either scientific or administrative work, being a man of broad training and wide experience, as his record shows. Born in Vermont, Dr. Ball received his B.S. and M.S. degrees from Iowa State College and in 1907 was granted the Ph.D. degree in Entomology at Ohio State, which institution is well known for its graduates in that science. His teaching career, begun in Iowa State, was continued in the Colorado Agricultural College and later in the Utah Agricultural College. From 1907 to 1916 he was Dean of the latter college and Director of the Experiment Station. During the succeeding two years he was State Entomologist of Wisconsin following which he was head of the Department of Zoology and Entomology at Iowa State College as well as State Entomologist of Iowa. From Iowa Dr. Ball was called to Washington, D. C. as Assistant Secretary of Agriculture under Secretary Wallace, from which post he passed to that of Director of Scientific Work of the U. S. Department of Agriculture, serving in the latter capacity for four years. From 1925 to the present Dr. Ball has been in charge of celery insect investigations with the Florida State Plant Board.

In addition to the many bulletins which Dr. Ball has prepared, he has published about 65 papers on systematic entomology. He has worked on and perfected a driving spray method of control for the codling moth, the universal apple crop pest, and also worked out the life history of the migratory of Rocky Mountain locust, a method for its control, and



Dr. Elmer Darwin Ball

the causal factors of the periodic outbreaks of that famous pest.

In the comparatively new field of the relation of insects to the transmission of plant diseases Dr. Ball has done much excellent pioneer work of an exacting and difficult nature. He discovered that curly top, the most destructive of sugar beet diseases, is carried by the tiny beet leafhopper, a member of one of the insect families on which he is an authority. He has today probably a wider and more complete scientific and practical knowledge of the relationship of this insect to the possibilities of successful sugar beet culture than any other person. He also determined the causal relation of the potato leafhopper to potato tipburn, a disease causing enormous damage to the potato crop in many sections.

While Dean and Director at Utah Dr. Ball built up the College until it had the highest per capita graduation in the United States, and carried out a long-time breeding experiment on poultry which resulted in an entire change of ideas with regard to the inheritance of egg laying.

President Shantz, who recommended him for appointment by the Board, believes that Dr. Ball is one of the outstanding men in the United States in agriculture, and the best man to be had for the work to be done. He will not require time to adjust himself to Arizona conditions, as his knowledge of irrigation agriculture and of the West will enable him to begin at once with scientific and administrative work. He has stated in a letter to President Shantz that there will be little reorganization at present, as he believes the present organization will suit his plans.

The combined budgets of the College of Agriculture and of the Agricultural Experiment Station, composed as they are of a complex of Federal and State funds, divided as they are into department budgets for research and for teaching, experimental and teaching farm budgets, offer a difficult problem in administration. Dr. Ball, however, should be quite at home in this work, not only because of his previous experience in the same position in Utah, but because of his experience in such matters in the U. S. Department of Agriculture, where he handled much of the organization and budget work.

Arizona agricultural interests as well as the University are to be congratulated on the appointment of Dean Ball.

The deanship thus filled was made vacant by the resignation of Dean Thornber, who wishes to return to his work on the flora of Arizona. Professor Thornber has been on the University of Arizona campus for twenty-seven years, and is well known over the State as an authority on its plant life, and especially for his studies of range grasses. He will

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PRODUCE CLEAN MILK

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the milk comes in contact with, the greater the chance of further bacteria and dirt being added. Some idea can be gained, of the amount of bacteria added to milk from utensils that are not thoroughly sterilized, by the following table taken from Illinois bulletin 204.

Condition of Utensil,	Bac. per (C. C.)
Normal count, utensils sterile	5,000
Three milk pails added	54,315
1 strainer added	7,315
1 clarifier tank added	8,038
1 clarifier added	141,340

Since some utensils are necessary it is important that they be strictly clean and sterilized. To properly clean any utensil it should first be rinsed in cold or luke warm water, then washed with hot water containing washing soda. A good brush should be used, but not a rag as it will only smooth over any adhering milk. The wash water is rinsed off with clean water and the utensil sterilized.

Sterilization may be accomplished by heat or chemicals, live steam being the most practical and most efficient sterlizing agent .Cans and similar utensils may be heated over a jet of steam for several minutes and allowed to dry and air. A good method is to place them in a well ventilated place where the sun's rays can strike them, but wehre they are protected from flies and dust. The heat from the steam will dry the can if a lid is not placed on it. Any moisture left in a utensil will furnish an opportunity for bacterial growth. Bottles can be sterilized by placing them in a large box with a tight fitting door and turning in the steam for twenty or thirty minutes. They may be left in the sterilizer until used and thus prevent contamination.

To sterilize with chemicals, a solution is made and the utensils dipped in it. They may then be placed where they can sun and air. Several chemicals such as B. K. and Sterilac are on the market for this purpose. or a home-made stock solution can be made as follows: Add one pound of finely powdered chloride of lime to one gallon of water; allow to stand twenty-four hours with several stirrings during the day. Pour off the clear fluid into a dark colored bottle and cork tightly. Use in the proportion of one fluid ounce to five gallons of water.

The original contamination of milk is surprisingly small compared with the bacterial count made after several hours. This is brought out in an investigation made by Ayers, Cook, and Clemmer and is reported on in U. S. Department of Agriculture Bulletin 642. Hence the large number fo bacteria often found in milk is usually due to growth introduced during handling. By cooling promptly after milking and holding at a low temperature this growth can be checked to a great extent. The following table taken from New York Department of Agriculture Circular 10, shows the development of bacteria at different temperatures.

Temperature Bacteria per C.C.

Temp.	Bac. Per C.C.	Time Held
40° F.	4,000	12 hrs.
45° F.	9,000	12 hrs.
50° F.	18,000	12 hrs.
55° F.	38,000	12 hrs.
60° F.	453,000	12 hrs.
70° F.	8,800,000	12 hrs.
80° F.	55,300,000	12 hrs.

By running the milk over the cold surface of a milk cooler in a thin film, undesirable and cowy ordors e eliminated. However, the air that comes in contact with the milk must be pure and free from dust. To keep the air in a satisfactory condition the milk house must be located away from contaminating surroundings and the conditions inside the house be such that no undesirable odors are given off. Since a certain amount of steam and foul air is given off in the washing room, the milk should be handled in a separate room. The entire house should be kept well ventilated, but protected from drafts and dust laden air. There should be an abundance of window space for the admission of sunlight as this is one of the best means of keeping the house in a sanitary condition.

The most important factors in the production of clean, safe milk may be briefly stated as follows: Keeping the bacteria count low by excluding all foreign material, through sterilization of equipment, cooling promptly, and holding at a low temperature to prevent the development of any bacteria that have been introduced.

The food value of eggs has no relation to the color of the shells. Browns and whites are similar inside.

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be Professor of Botany, and Botanist of the Agricultural Experiment Station, and in this dual capacity can render valuable assistance to Arizona cattlemen and farmers.

Wash Quilts With Care

Suds made of pure soap, a little ammonia and warm water are good to soak a quilt for 30 minutes. Then souse and squeeze it in fresh suds, but do not rub. Rinse in two waters of the same temperature. Do not wring it, but hang it dripping over two lines. When partly dry, beat it lightly with a rattan carpet beater to fluff up the filling.

Life of linoleum can be lengthened considerably by giving it a good coat of varnish occasionally.

* * *

Keep pullets away from old hens so that they can be fed and handled separately.

* * *

Look over your fire prevention equipment before winter comes.