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Henry G. Knight

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REYMANN MEMORIAL FARMS

BY HENRY G. KNIGHT



AGRICULTURAL EXPERIMENT STATION
COLLEGE OF AGRICULTURE, WEST VIRGINIA UNIVERSITY
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MORGANTOWN

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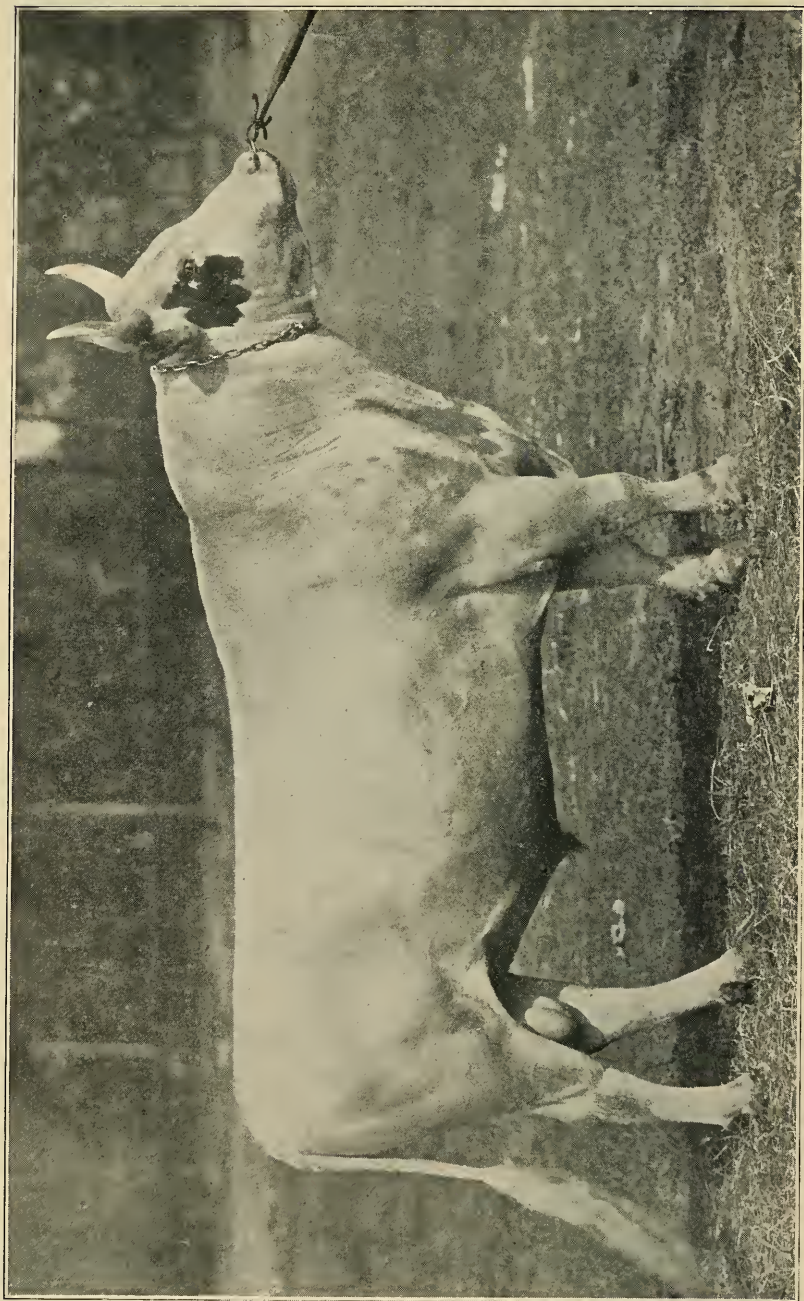
Reymann Memorial Farms

The Lawrence A. Reymann Memorial Experimental Farms are located in Hardy County, in the picturesque Cacapon Valley of eastern West Virginia, within six miles of the town of Wardsville. These farms are two in number, consisting of 931 acres of fine lands upon the floor and the western slope of the valley. They are devoted primarily to the study of fundamental problems of the dairy industry, and for this purpose a foundation herd of purebred, registered Ayrshire cattle is being carefully developed.

The Lawrence A. Reymann Memorial Experimental Farms were received by the State of West Virginia on April 1, 1917, as a memorial gift from the Reymann family of Wheeling in memory of a deceased son and brother to commemorate his deep interest in agriculture and in the breeding of Ayrshire cattle. The gift included all necessary work animals, and a small number of poultry and swine, together with ninety-four head of purebred, registered cattle. Under the terms of the deed of transfer the farms are to be used for experimental work in all phases of agriculture.

At considerable expense after acquisition of the farms by the Reymann Family by purchase in 1912 a system of tile drainage was installed, a much needed water supply system completed, and new buildings were added to better fit the farms for dairying. At the time they were received by the state they were valued at about one hundred and twenty-five thousand dollars. At present land values this valuation would have been considerable more.

At the time of the transfer to the state there were a number of good substantial buildings upon the farms, such as barns, machinery sheds, and residences. In 1921, the Legislature ap-



Leto, a Proven Sire, Heads the Herd at the Lawrence A. Reynann Memorial Experimental Farms. He Is the Out-crossed Bull in the First Phase of the Experiment.

appropriated \$25,000 for buildings upon the farms which was used for the erection of one of the largest modern dairy barns in West Virginia, and a cottage used as a residence for the herdsman. All the lumber used in the barn was cut in the mountain forests upon the farms or upon the property adjoining, owned by the Reymann Family. It was sawed by a portable mill run by a gasoline tractor, and thoroughly seasoned before being placed in the building. The interior of the barn is ceiled with lumber and varnished with clear spar varnish. Individual drinking cups for the cows and taps for washing are supplied with water from springs upon the farms. In 1923 the State Legislature made a further appropriation of \$5,000 for buildings, which was used for the erection of a creamery. A cold storage plant was installed in this building, making it modern in every way.

At Wardensville the Cacapon valley is little more than two miles in width, and is bordered by mountains. The soil is for the most part a sandy loam, naturally very fertile and readily built up to high productivity. During the summer of 1924, among the growing crops on the farms were ninety acres of excellent corn, about the same number of acres of alfalfa pro-



A View of the Cacapon Valley, Looking Across the Reymann Memorial Farms in the Direction of Wardensville. At This Point the Valley is More Than Two Miles Wide.



The Dairy Barn on the Reymann Memorial Farms. All of the Lumber Used in This Barn Was Cut from the Forests on the Farms.

ducing about four cuttings a year, about forty acres of oats, and thirty acres of soybeans; all of which represent the principle crops grown. At the present time in a normal year the farms are producing all of the roughage needed for feeding the livestock. Most of the remainder of the land which is rapidly being improved in productivity is devoted to pasture purposes.

Until the fall of 1922 the milk from the herd was converted into American Cheddar cheese, but because of the changes in the economic conditions the cheese factory was closed and since that time sweet cream has been placed upon the Washington, D. C. market. Prior to 1922 the nearest railroad point was about twenty-five miles distant, making it impractical to ship out perishable products. The construction of the Winchester and Western Railroad from Winchester, Virginia, to Wardensville with a siding on one of the farms has remedied the situation. Good connections are made through Winchester and Harper's Ferry to Washington, D. C.

Until the fall of 1922 the primary endeavor was improvement of the herd of Ayrshires with the object of obtaining uniformity and a higher milk production as a foundation for some fundamental experiments. Considering the large amount of capital involved and the desire to make the experimental work of as great value as possible at this time, the United States De-

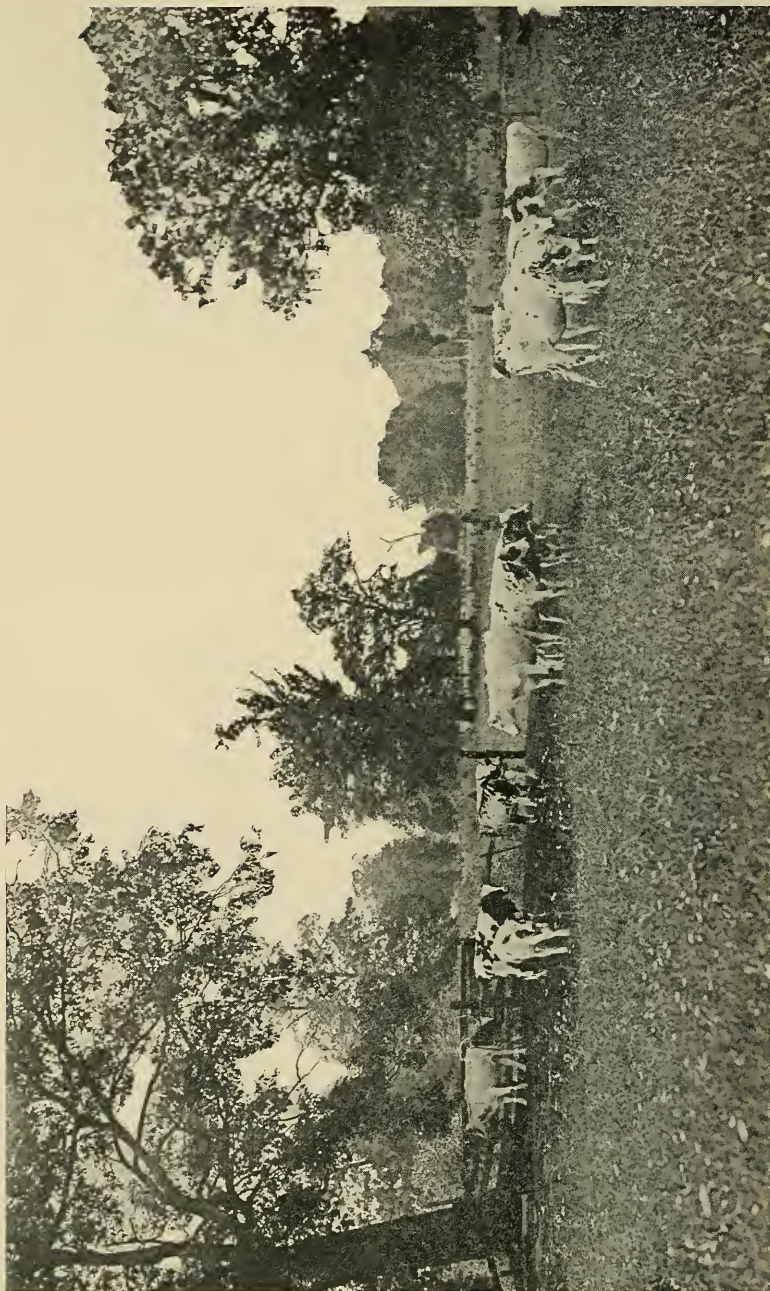
partment of Agriculture, which has facilities for undertakings of almost any magnitude, was invited to co-operate. During the year a co-operative agreement was entered into with the Bureau of Animal Industry, United States Department of Agriculture, for the purpose of carrying on experiments for the next two decades at least.

The principal project decided upon was a breeding-in and -out experiment, using tested sires, the object of which is to determine whether high production can be fixed so that it will be uniformly transmitted by the continued use of proven potent sires and whether this object can best be obtained by the use of related sires or non-related sires.

The Ayrshire herd of the Lawrence A. Reymann Memorial Experimental Farms is divided into two equal parts, both of which has as nearly the same blood lines as possible. On one group, proven sires that are related to the foundation herd will



The Superintendent's Residence is of Colonial Style Architecture, and Is Constructed of Red Brick Which Were Made in the Early Days Upon the Farm.



A Typical Pasture Scene on the Reymann Memorial Farms. All Pastures Are Well Supplied with Water and an Abundance of Natural Shade.

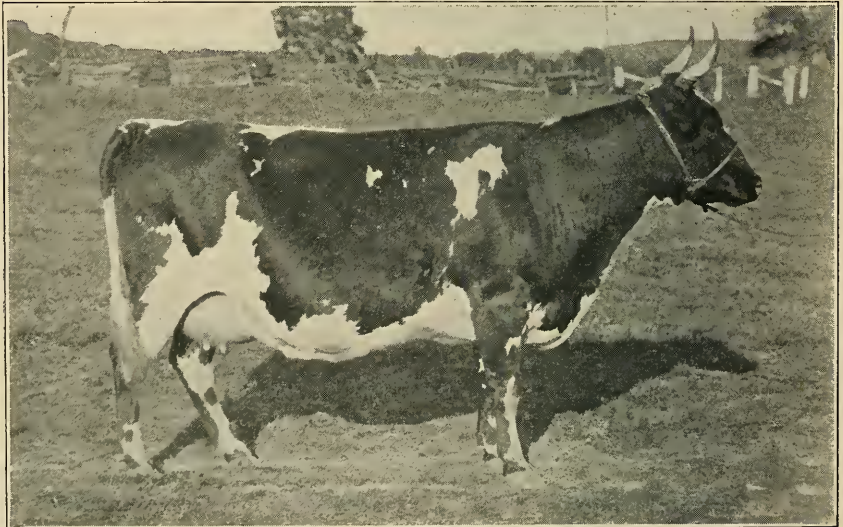


This is Cacapon Molly Douglas. She produced 2,128 Pounds of Milk in One Month, and Was Sold for \$1,010.00.

be used generation after generation; on the other group unrelated proven sires will be used. All females will be kept in the herd until they have completed one lactation period; during which period they will be under observation and kept upon test. It may be understood that it may take several years before any definite results are obtained. The large number of animals included in the experiment will give an opportunity to obtain an average which should be fairly representative of what may be expected in breeding operations. As this experiment compares the performance of mother and daughter the greater the number of generations compared the more valuable should be the results. It is assumed, therefore, that the duration of the experiment will be at least twenty-five years, although no definite date has been set for closing it. Like the rotation and fertility experiments on soils at Rothamsted, England, which have been continued for more than seventy years, it is hoped that as time goes on the results will become of increasing value. It is hoped that during the duration of the experiment, light may be thrown upon other important questions centering around livestock breeding and milk production.



Major Douglas Is a Proven Sire. He Is the Related Bull at the Head of the Herd for the First Phase of the Experiment.



Here Is Cacapon Nancy. She Is One of the Foundation Cows in the Reymann Memorial Farms Herd.



The Pastures on the Reymann Memorial Farms Are Varied in Character. Light Shales Prevail on the Hillsides and Heavy Loams on the River Bottoms.



Herds of Ayrshire Cattle Are Found in Every Pasture on the Farms. Stands of Trees Afford Good Shade and Cool Retreats on Hot Summer Days.



A Herd of Young Ayrshires in One of the River Bottom Pastures. These Pastures Furnish a Variety of Nutritious Herbage.

For the breeding-in portion of the experiment Hill Top Major Douglas has been chosen for the first phase. He is one of the outstanding bulls of the Ayrshire breed and is a proven sire, combining the blood of Finlayston, Rena Ross, Howie's Dairy King, and Noxemall. Penshurst Schoolmaster by Netherton Statesman out of Bloomer's Queen Mab and Henderson's White Cloud 4th by White Cloud of Hickory Island, are used as Junior Sires. Hill Top Major Douglas now has eleven daughters in the Advanced Registry.

For the breeding-out portion of the experiment R. R. Graves of the Dairy Division of the United States Department of Agriculture, for the first phase has selected Leto 14560 as the best available proven sire. Quoting from the Ayrshire Digest* "Leto has eight Advanced Registry daughters with twelve records averaging 12,621 pounds milk and 491.25 pounds fat, all but one being out of untested dams. All of these daughters were tested by William T. Tonner, Glen Foerd Farms, Torresdale, Pennsylvania. Four, as Senior two-year olds, averaged 11,520 pounds milk, and 460.3 pounds fat, and four, as Junior three-year olds averaged 13,375.4 pounds milk, and 530.3 pounds fat. Leto's Rosette, whose Junior three-year old record is 16,448 pounds milk and 650.11 pounds fat, was an Advanced Registry Gold Medal and French Prize Cup winner; Bianca Woodhull, Senior

*Taken from Ayrshire Digest, December 15, 1923. "Leto—Proven Ayrshire Sire."

two-year old with 14,912 pounds milk and 555.15 pounds fat, and Leto's Viola, Junior three-year old, with 14,033 pounds milk and 522 pounds fat, are both Silver Medal winners in the Advanced Registry; the latter being an Association Prize Cup winner in the Roll of Honor. Leto's Dolly, with 11,191 pounds of milk and 437.91 pounds fat, and Matchless Woodhull, with 11,830 pounds milk and 510.84 pounds fat, both as Junior three year-olds, were Silver Medal winners in the Roll of Honor.

"Leto is not only a sire of producers, but his sire, Bargenoch Bonnie Scotland, a bull from production stock, has seventeen Advanced Registry daughters and his dam, with a record made in 1910-11 of 11,062 pounds milk and 452.67 pounds fat, was by Cock-a-Bendie, who had five tested daughters averaging 10,488 pounds milk and 411.53 pounds fat.

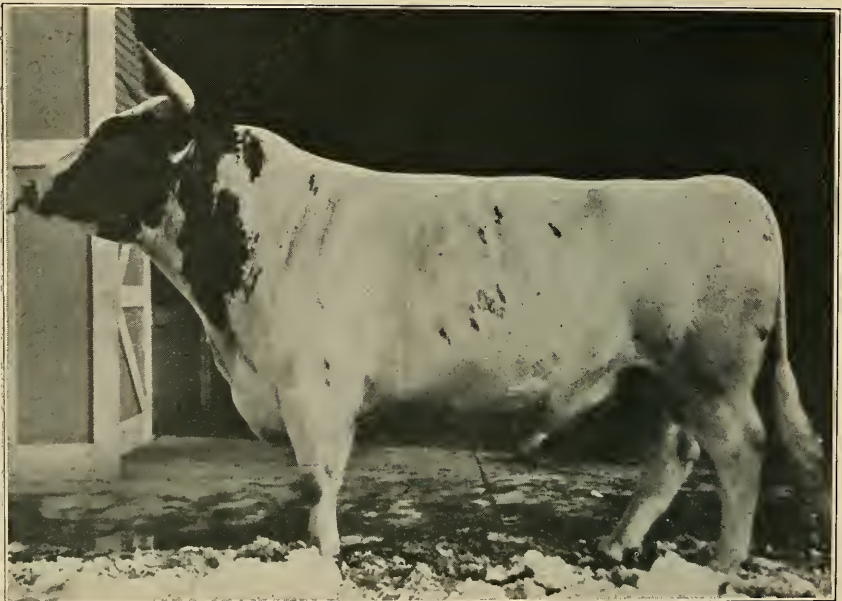
"Leto was dropped in 1911 as the property of Mrs. V. D. Erhardt, the Lotus Fields, West Berlin, Vermont, and was sold as a yearling to James H. Guernsey and Company, Woodhull, New York. He was owned by J. M. Cochrane of Bath and J. Henry Stewart of Kanona, New York, from 1916 to 1919, and by the University of Vermont from 1920 to November of 1922, when he was transferred to Hill Top Farm, to remain as long as he is serviceable."



One of the Big Problems in West Virginia Is the Improvement of Pasture Lands. This Pasture on the Reymann Memorial Farms Has Been Greatly Improved.

That the use of tested sires has some merit seems to be fairly well established for, in all herds thus far, when tested high grade sires have been used, there has been in general an increase in production by the daughters over the dams, however, the results obtained with comparatively large numbers maintained under definite conditions as would be possible at the Lawrence A. Reymann Memorial Experimental Farms should be conclusive. Some very definite results in herd development have already been accomplished.

During the year 1918 thirteen cows, seven of which were heifers with their first calves, qualified for the Advanced Registry of the breed. They had an average production of 9,476 pounds of milk and 427 pounds of butter fat or the equivalent of nearly 500 pounds of butter. The best production for that year was nearly 14,000 pounds of milk and 512 pounds of butter fat, equal to 600 pounds of butter, held by Whitey Nox, a six year old cow. The next best record was made by Cacapon Nancy, a



Penshurst Schoolmaster Is the Junior Herd Sire at the Reymann Memorial Farms. His Daughters Are Showing Very Uniform Production.



Here Is Schoolmaster's Flora of Cacapon. It Is a Typical Calf at the Reymann Memorial Farms, and Was Sired by Penshurst Schoolmaster.

three year old cow, her production being 12,000 pounds of milk and 497.9 pounds of fat, equal to 581 pounds of butter. The average production of the whole herd in 1923 run between eight and nine thousand pounds of milk, which approaches that reached by the selected thirteen cows in 1918.

Advanced Registry testing has been pushed vigorously and during the past year there has been an average of thirty cows on test. In February, 1923, the Lawrence A. Reymann Memorial Experimental Farms tied for first place in the list of breeders having cows in the fifty pound class, while in March, April, and July they headed the list. The daughters of Hill Top Major Douglas have completed sixteen Advanced Registry records, only four of which are mature records and yet the average production is 9,567 pounds of milk and 409 pounds of butter fat. The four mature records made by his daughters average 12,447 pounds of milk and 541 pounds of butter fat. In addition to the

sixteen completed records there are about fifteen incomplete records being made by the daughters of Hill Top Major Douglas.

The careful development of the young stock, the official testing, and the better feeding and housing have laid the foundation for the co-operative breeding investigations with the Bureau of Animal Industry, United States Department of Agriculture which we at the West Virginia Experiment Station, and others who have studied the situation, feel will attract the attention of all those who are interested in cattle breeding.

Already even at this early date the farms are well known among Ayrshire breeders. A rather intense interest in dairying is beginning to be expressed throughout the Cacapon Valley which is spreading rapidly and may be attributed to the influence of the farms. Surplus stock from the farms has gone as far west as Oregon where it has received favorable mention and the Advanced Registry records are beginning to tell a story of progress which speaks well for the future.

The herd has been on the accredited list for about six years now and under the plan, as there will be no importations of livestock except bulls, there should be little difficulty in keeping the herd free from tubercular infection. It is hoped further that in the near future the herd may be shown to be free from all



A Field of Alfalfa on the Reymann Memorial Farms. More Than Ninety Acres of This Valuable Legume Are Grown on the Farms.



When "the Fodder's in the Shock" on the Reymann Memorial Farms. About a Hundred Acres of Corn Are Grown Each Year for Grain and Ensilage.

disease. Certainly, no less, could be asked of such an enterprise as this in the interests of better agriculture.

Under the plan of the experiment after a cow has delivered a heifer calf, to remain in the herd, and has completed an advanced registry record, she drops automatically out of the experiment and in the ordinary course of events will be sold. This will mean that a considerable number of three and four year old cows will be offered for sale each year which should attract some attention. An exceptional individual may be held back for a second heifer calf for use in the experiment but ordinarily all cattle sold will just be coming into the period of their greatest usefulness.

In this, one of the greatest breeding projects ever undertaken, there will be produced representations of the best lines of Ayrshire breeding in America, they will be guaranteed free from disease and every individual will be offered for sale as soon as she has fulfilled her mission in the experiment. These cows will be one of the by-products of the undertaking.

This magnificent memorial by the members of the Reymann Family is rather unique in character and is strictly in line with

the spirit of the age. This memorial not only represents one of the chief interests of Lawrence A. Reymann during the mature years of his life but also will promote that interest in others by testing theories and ideas, developing new facts, and sifting truth from superstition so that an industry may be developed upon a higher and more desirable plane, in turn adding its quota to the comforts and security of the generations to follow. Though, in years to come, Lawrence A. Reymann may be forgotten as a man, his spirit will be kept young by the endeavors carried on in his name.





Nature's Mirror on the Cacapon River as It Flows Through the Reymann Memorial Farms.





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