

Scientists Are Gaining On Poultry Leucosis

Poultry scientists are becoming confident that a way soon will be found to control leukosis, the cancer-like disease of poultry.

A comment by poultry pathologist B. R. Burmester, who has studied leukosis 20 years at the ARS Regional Poultry Research Laboratory, East Lansing, Mich., is indicative of the optimism being expressed: "In all the years of working on leukosis at this laboratory, I have never been as optimistic as I am now concern-

ing a solution in the near future".

Many researchers consider leukosis the costliest of all poultry ailments and one of the most complex to solve. Control of leukosis would not only drastically reduce losses — estimated at \$60 million annually — but the answers provided by poultry scientists might also prove beneficial to those studying cancer in man. The diseases are similar to the extent that both can be tumor-producing and both are characterized by uncontrolled and rapid cell division and growth.

Burmester lists several research developments by ARS and State scientists studying leukosis that make the out-

look for controlling the disease promising:

Results of a recent study suggests that a single virus — though it may vary in potency — causes the disease in its many forms. Virus from chickens infected with varying types of leukosis in 22 widely dispersed flocks was used to inoculate birds of a leukosis-susceptible line at East Lansing. The different sources of virus caused a wide variation in the amount of disease produced but the types of disease were similar. Types were also similar to those caused by strains of virus previously isolated and studied extensively at East Lansing.

Researchers have found how to detect affected or virus-

carrying birds by laboratory methods. Two means of detection are used; both are based on tissue culture procedures. A serum antibody test identifies some birds that are or have been, infected and have produced antibodies against the disease. A virus detection test identifies chickens that were infected as embryos — or shortly after hatching — and still carry the virus, but don't respond to the serum antibody test. ARS scientists are making progress toward the development of a simple, reliable test for field use.

Much has been learned about how the virus is trans-

mitted. It has been proved that the virus that causes visceral lymphomatosis, the most prevalent form of leukosis, can be transmitted from generation to generation by infected fertile eggs. The disease can also be transmitted by direct contact between chickens in the same pen.

This increased emphasis on leukosis research might result in an answer to a question that is perhaps a key to controlling leukosis: What is responsible for triggering a latent infection? The virus will often be present in chickens for a long time, apparently not causing any trouble. Then something happens, setting off rapid cell growth in one or more organs or systems of the body.

Since much basic progress has been made towards an adequate understanding of the complex disease, ARS poultry researchers believe that increased emphasis now on practical control methods will hasten the day when poultrymen can effectively combat leukosis.

County Native Appointed By Ag Extension

Richard P. Lorah, who was graduated at The Pennsylvania State University on June 9 with a bachelor of science degree in agricultural education, has been named to the Cooper-



RICHARD P. LORAH

ative Extension Service staff of the University as assistant county agent, effective June 10.

Dr. Russell E. Larson, extension director, announced that Lorah will be assigned to Clearfield county where he will be associated with County Agent Homer Mazer, with offices in the post office building, Clearfield.

Son of Mrs. Floyd G. Lorah, 153 E. Main St., Adamstown, Lancaster county, Lorah was reared on a farm, and was graduated from Cocalico Union high school. While in college he was a member of the Poultry Club, the Collegiate Future Farmers of America, the Coaly Society, Agricultural Student Council, and Alpha Tau Alpha, Gamma Sigma Delta, and Alpha Zeta fraternities.

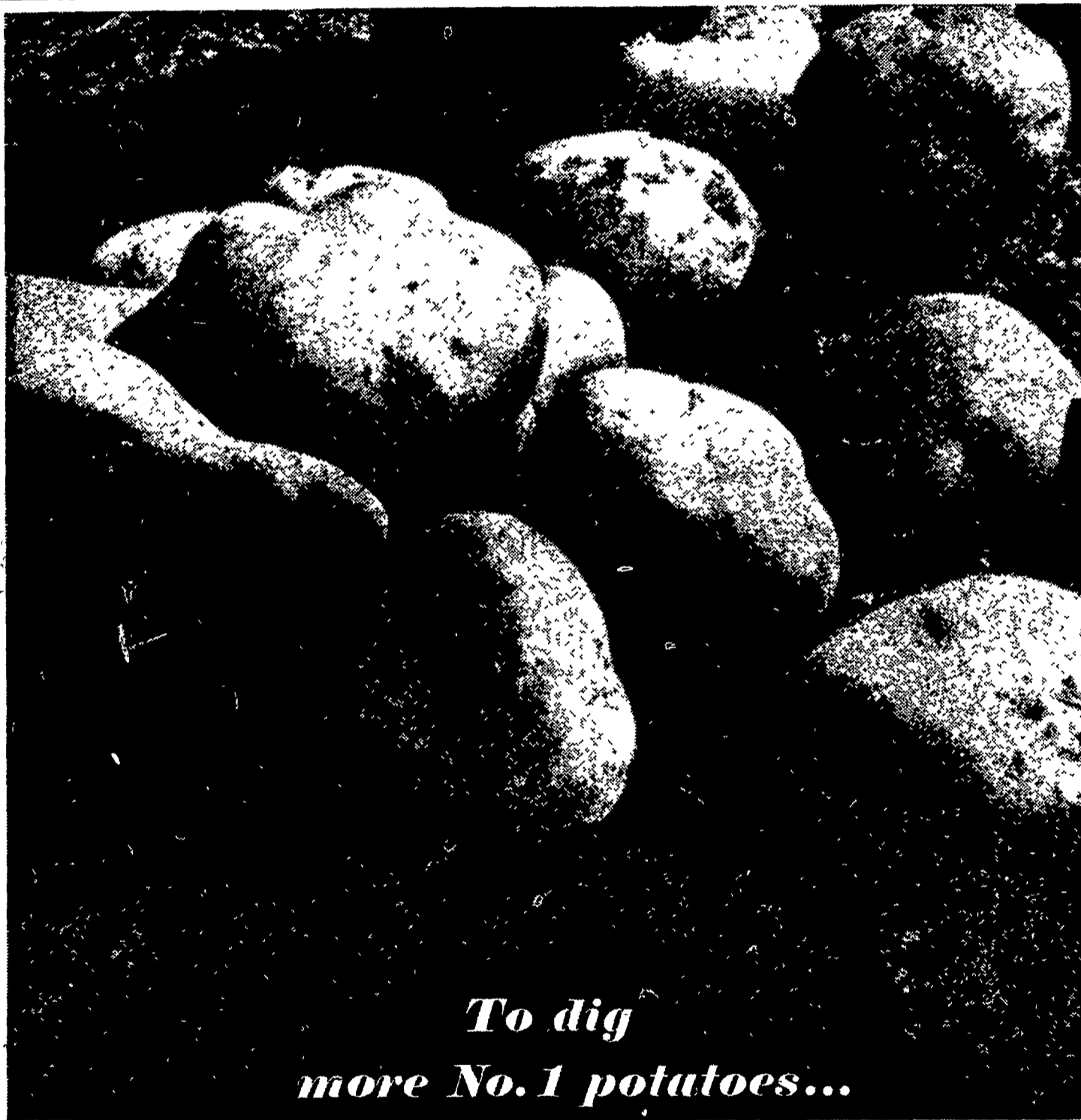
Pennsylvania's commercial pea crop is used entirely for processing. Fifty-five percent is frozen and 45 percent is canned. Peas account for 7 percent of the total vegetable acreage and rank fifth in value to growers. The first five counties in order of pea acreage are York, Centre, Columbia, Adams, and Potter.



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