The use of gelatine as a medium to contain the silver halide was a more obvious idea. But it was not so easy to foresee that the sensitivity of silver salts would be much further increased when they were held in this medium. For long this remained unexplained, until it was noticed that some specimens of gelatine were much more active than others. This was ultimately traced by S. E. Sheppard to the presence of traces of mustard oil, a sulfur compound, in the more active specimens. This, in turn, depends in all probability on the pasturage on which the animals that afford the gelatine have been fed. The quantity present is incredibly small, comparable in quantity with the radium in pitchblende.

(To be concluded)

SCIENTIFIC EVENTS

AGRICULTURAL RESEARCH AT ROTHAMSTED

LORD FEVERSHAM, parliamentary secretary to the British Minister of Agriculture, announced recently that the Rothamsted Experimental Station at Harpenden, the oldest agricultural research institution in the world, had been granted £14,500 by the British government to meet half the cost of building extensions. The station hopes to celebrate its centenary in 1943 with a comprehensive building scheme.

According to the London *Times*, the investigations in progress at the experimental field plots and laboratories include research into the "take-all" infective disease, found in all places where there is an alkali light soil, which attacks wheat. In other parts of the world it is a serious disease, and Australia can lose 80 to 90 per cent. of a crop. With the development of mechanized farming the disease has appeared in Great Britain. The fungus persists in the soil, but it has been found that ground rye meal will halve its persistence.

The Department of Entomology is studying the migration of insects and their relation to climatic conditions. Ingenious traps have been arranged, some like glass lobster pots, which have been out in the fields for four years. The catch one night was 70,000 insects. With the data collected the station can get a measure of the total abundance of insects and so issue forecasts. Some of the experimental field plots have been under surveillance for 100 years.

At a luncheon given by the Lawes Agricultural Trust Committee, Lord Radnor, who presided, referred to the importance of Rothamsted. Since 1919 the loss of agricultural land was very nearly 20,000,000 acres, and while only 20 per cent. of this was due to town expansion, there was a considerable area of rough grazing and unproductive land. Many countries, on which Great Britain relied, were finding that the stored fertility of the land was coming to an end and that they would have to find other methods of agricultural production to maintain fertility.

RESEARCH LABORATORIES AUTHORIZED BY THE AGRICULTURAL ADJUSTMENT ACT

SECRETARY WALLACE has announced that research laboratories authorized by the Agricultural Adjustment Act of 1938 will be established in four major farm-producing areas. He also named the surplus farm commodities on which the work will be done during the initial program. Section 202 of the Agricultural Adjustment Act of 1938 instructs the Secretary of Agriculture to establish four regional research laboratories for research on new uses and market outlets for agricultural products. According to the law, funds available for the laboratories and their work must be divided equally among the four.

The areas are to be known as the Southern, Eastern, Northern and Western major farm producing areas. The states included in these areas are:

Southern Area: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina and Texas.

Eastern Area: Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Tennessee, Vermont, Virginia and West Virginia.

Northern Area: Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin and Michigan.

Western Area: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

In deciding on this grouping of states the distribution and type of agriculture production, farm population, farm income, value of farm property, total population and other facts were taken into account. Secretary Wallace pointed out that it is of first importance that the research load among the four laboratories should be equalized and coordinated for the efficient performance of the task specified by the Congress. This is especially necessary because the total funds available for these laboratories, $4,000,000, must be equally divided among them. He stated that the department had given full consideration to questions bearing on regional interest and unity in each area. They had realized from the beginning that the four major farm producing areas must be so defined and the work so organized that it would be possible ultimately to include in the program, so far as resources permitted, the major surplus commodities of interest to any area. The central idea throughout had been to secure results efficiently. These results