

## New Systemic Insecticide Proves Effective in External Spray

A new systemic insecticide, Bayer 21/199, has proved effective as an external spray in controlling grubs in cattle and screw-worms in cattle and sheep. USDA research has shown this chemical proved much less effective as an oral medication.

Bayer 21/199 is an organic phosphorus compound that works systemically—is absorbed through the skin, translocated to tissues containing grubs. If the spray is applied several weeks before the grubs normally appear in the back, it prevents further development of the larvae. It kills screw-worm larvae mostly on contact.

The sprays were tested both as emulsions and as suspensions of

the chemical. The former were more effective in controlling the cattle grub but both were equally effective treatments for the screwworm.

Against cattle grubs—larvae of the heelworm fly—the Bayer 21/199 sprays prevented grubs from appearing in the backs of most tested cattle. The only exceptions were two animals that received a low concentration of a suspension spray.

Three concentrations of the compound—0.25, 0.5, and 0.75 per cent—were sprayed in November 1956 on 48 beef yearlings heavily infested with the common and northern species of grubs. Sixteen untreated animals served as checks. Spray was applied under 300 pounds pressure at an average rate of 1½ gallons per animal. It was necessary to apply large quantities under pressure to thoroughly wet the animals' thick winter coats.

The treatment prevented grubs from appearing in the backs of all except two animals sprayed with 0.5 per cent suspension. One had seven grubs, the other had one that didn't develop.

Oral treatment with the new chemical gave some control but was abandoned because of toxicity to cattle.

Untreated cattle in both spray and oral tests averaged 44 grubs per animal. Even though use of Bayer 21/199 for cattle grub control hasn't yet been approved, ARS entomologist O. H. Graham feels that emulsion spray treatments with it are very practical (1) if applied several weeks before grubs appear in the back, and (2) if applied so as to insure adequate skin absorption.

Against the screwworm, both emulsion and suspension sprays of Bayer 21/199 were effective. Use of these sprays in controlling screwworms would be a great help to livestockmen. It would eliminate, for example, the current practice of riding the range daily hunting for infested animals and applying a smear to the wounds.

### The World-Famous Weed Killer

# WEEDONE

## LV 4



More Kill To The Ounce

The First Low Volatile Ester 2,4D

★ Proved the most efficient weed-killer for pre-emergence spraying in corn. Will control both annual grasses and weeds.

Special Prices on Quantity Orders and to Custom Sprayers

**P. L. ROHRER & BRO., INC.**

SMOKETOWN, PA.  
Ph. Lanc. EX 22659

### PROCESSED POULTRY

PHILADELPHIA, May 28 — Ready to cook ice packed broilers — steady. Demand was good. Supplies were adequate for immediate trade needs.

Prices paid delivered warehouse, Philadelphia (cents per lb) Grade A & US grade A, 2-3 lb. 34½-37, mostly 34½-35.

Hens: Ready to cook (ice packed) Steady Supplies were no more than sufficient to meet the good demand.

Prices paid delivered warehouse, Philadelphia (cents per lb) Grade A and US grade A 4-5½ lb. 38-40.

Receipts May 27 — 251,000 lb other than turkeys. Maryland, 70,000 lb, Delaware, 77,000 lb, Virginia, 32,000 lb, North Carolina, 47,000 lb.

(Animals are then kept in small pastures for several weeks and treated every two to four days.)

Extensive trials with over 11,000 sheep on nine Texas ranches showed effectiveness of the compound against scaworm. These sheep were sprayed immediately after shearing to protect shear cuts from infestation. Another group of 408 sheep and goats was treated to prevent infestation through injuries associated with lambing, castration, docking, ear tagging, and old screwworm wounds.

Most of the sprays were suspensions prepared from a wettable powder containing 25 per cent active ingredient. About one quart of the compound was sprayed on each sheep or goat.

In general, tests on both groups of animals had excellent results. Sprayed animals were protected from screwworm infestation for 10 to 20 days—long enough for most injuries to heal completely or to such an extent that they no longer attracted screwworms. Even where spray treatments ultimately failed, they gave 10 days' protection. (EQ-335, a lindane-based compound widely used by sheep men to treat their sheep for scaworms, frequently failed as early as two to four days after treatment).

Bayer 21/199 kills the screwworm both upon contact and through systemic action but the systemic action lasts for only a day after spraying. Long term effectiveness of the compound against the screwworm is due to the minute particles of insecticide that flake off the animal's hair into the wound, killing the worm.

### USDA Dairy Scientists Start Crossbreeding Study

Additional information on whether crossbreeding of dairy cattle can usefully serve the Nation's dairy industry is the goal of a study just begun by US Department of Agriculture dairy scientists at the Agricultural Research Center, Beltsville, Md.

The long-range project will compare purebred Brown Swiss, Ayrshire, and Holstein cows to crosses of the same breeds. The test matings have been planned so that two- and three-way crosses can be compared in the same generation.

Results of the trials will be evaluated on the basis of milk production, butterfat content of the milk, solids-not-fat production, breeding characteristics, birth weight, growth rate of calves, and feed efficiency. This study should give further information on the value of crossbreeding for rapid herd improvement when sires from artificial breeding establishments are used.

### LIVE POULTRY

PHILADELPHIA, May 28 — Unsettled Trading was active as buyers prepared for the week-end demand which centered on hens, caponettes and fryers. More than ample supplies of all classes were offered. Buyers were critical on size and quality.

Receipts May 27 — 112,000 lb, including Delaware 30,000 lb, Maryland 5,000 lb

Wholesale selling price No 1 & fancy quality Broiler-fryer heavy type 3-4 lb 22-25, pullets 4½ lb and over 30-31, hens, heavy type 26-29, light type 16-21, old roosters 10-12, ducks Pekin 30.

## Expanded Hay Show Series Planned By PSU Agronomists This Summer

By NORMAN EBERLY  
Penn State Ag. Editor

Samples from forage stands soon to be harvested on Pennsylvania farms will be among entries at five district hay shows in the state.

Frank G. Bamer, chairman of agronomy extension at Penn State University, said this will be the third annual series of hay shows. The dates: Aug. 21-23, Hershey, for Southeast Pennsylvania; Oct. 7, Greensburg, Southwest; Oct. 9, University Park Central; Oct. 30, Titusville, Northwest, Nov. 6, Wysox, Northeast.

BAMER SAID Dr. John E. Baylor, extension agronomist, will have charge of the shows, with county agents assisting. The shows are a part of the continuing emphasis being placed by the University's agricultural staff on better hay crops. Interested organizations, including seed, machinery and equipment dealers, power companies and farmer cooperatives, are lending financial assistance.

Winners of the first five places in each class will get ribbons. A champion will be named for each of two divisions — one for field

cured hay, the other for hay that is heat dried, with a grand champion for the top entry of the whole show.

FREE CHEMICALS analyses will be made of the top three samples in each class, and the first two winners in each class will qualify to enter hay exhibits, in corresponding classes, at the 1959 Pennsylvania Farm Show next January in Harrisburg.

The first show will be part of a week-long multi-event program at Hershey, including the annual Pennsylvania Dutch Days and the Pennsylvania and National Plowing Matches.

THE HERSEY hay show will embrace a 16 county region of Dauphin, Lebanon, Berks, Schuylkill, Bucks, Lehigh, Northampton, Montgomery, Philadelphia, Delaware, Chester, Lancaster, York, Adams, Franklin and Cumberland.

J. E. Lanus & Son (Donald), York RD 3, won the grand championships there in 1956 and 1957, both with field cured alfalfa.

Three special related exhibits are planned for the Hershey show. One will be of weeds and weed control, one of grasses and legumes, and another of lime and fertilizer.

## ATTENTION DAIRYMEN

For Your

### Limestone Sand For Use In Dairy Barns

Call

**D. M. STOLTZFUS & SON, INC.**

Asphalt Paving & Crushed Stone

Quarryville, Pa.

Quarryville — STerling 6-2191

## Grass Silage Preservers.

FOR DIRECT CUT—  
OUR TOP QUALITY — \$54.90  
OATS FEED AND MOLASSES MIX \$45.00  
(LESS QUANTITY & 2% DISCOUNT.)  
FOR WILTED FORAGE—  
BEACON SILO SWEET—70c PER LB.

All our Feeds are subject to analytical control by Garrett Laboratory for your protection. So for top quality poultry & livestock feeds see

Millport Roller Mills, Lititz, R. D. 4.

Serving the farmers for over 90 years.

## Green Sand - Potash Rock & Colloidal Phosphate

(Calphos)

NATURAL SOIL BUILDERS

Use in . . .

Stables - Poultry Houses

Increases: Potash Content, Manure Value  
Safe Absorbent for Moisture

Apply on . . .

Lawns - Gardens - All Field Crops  
Will Not Burn - Odorless

BULK OR BAGS

Place Your Order Today with One of These Dealers

LANCASTER

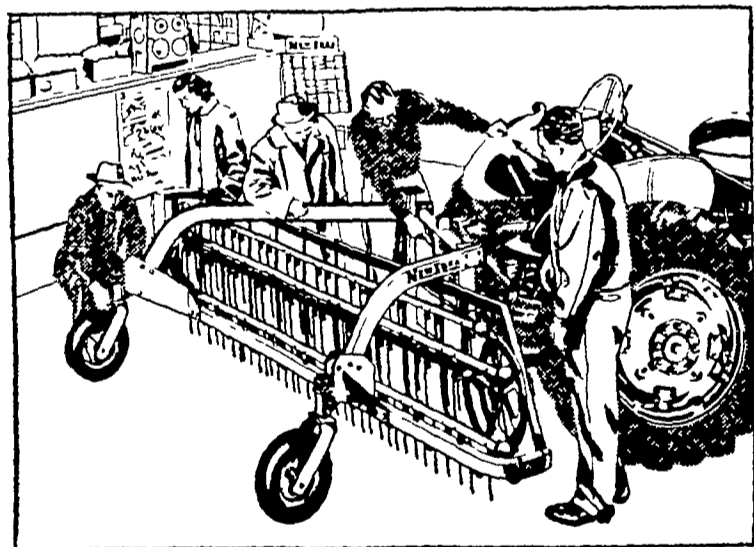
ROY B. ERB . . . . . LO 9-1580

MILLERSVILLE

MERVIN McMICHAEL . . . . . TR 2-4377

BIRD-IN-HAND

SMUCKER BROS. . . . . SO 8-3610



## Ask us for demonstration

of the new No. 49 New IDEA rake that's making 3-way news with farmers everywhere.

- .. Only mounted parallel bar rake that fits 45 tractors
- .. Makes fluffy, bunch-free windrows
- .. Cuts raking time almost in half

Call RIGHT NOW for FREE demonstration on your farm—no obligation

A. B. C. Groff  
New Holland

Landis Bros.  
Lancaster

F. H. Shotzberger  
Elm

J. Paul Nolt  
Gap

H. S. Newcomer & Son  
Mt. Joy

A. L. Herr & Bro.  
Quarryville

Allen H. Matz  
Denver

J. H. Reitz & Son  
Lititz, RD4