

## ENTOMOLOGY

**Agricultural Insecticide  
Ok'ed for Use in Homes**

➤ A POWERFUL, long-lasting insecticide used this summer to battle infestations of armyworms in north central states will be available soon for use in controlling household insects as a result of recent label acceptance by the U. S. Department of Agriculture.

The chemical, dieldrin (pronounced DEEL-drin), kills roaches, ants, silverfish, ticks, and even wasps and mud daubers, its manufacturer, the Shell Chemical Corporation, claims. In tests at Cornell University, dieldrin killed houseflies in five seconds after contact with them.

The insecticide should be used for spot application to floors, sills or wherever insects may crawl or alight. Dieldrin should not be sprayed into the air because repeated or prolonged breathing of the odorless chemical may prove injurious. It has been banned from use in aerosol bombs.

Users of dieldrin should be careful not to get it on their skin. If accidentally spilled on skin areas it should be washed off immediately.

The U. S. Department of Agriculture's acceptance does not mean, necessarily, that it recommends the product. It does mean that when the chemical is used as directed on the label, the results claimed on the label will follow.

Dieldrin will be distributed by several companies as a dust or spray in various formulations under their own trade names.

Science News Letter, August 21, 1954

## VETERINARY MEDICINE

**Urge Establishing More  
Blood Banks for Dogs**

➤ WHEN A dog has to go to the hospital for an operation or when he loses much blood in an accidental injury, he can benefit from a blood transfusion as much as his master would under the same circumstances. In some cases, the blood may save the dog's life.

Finding a blood donor for the dog, however, may be much harder than finding one for the master. So veterinarians suggest setting up blood banks for dogs.

One such at the University of Georgia School of Veterinary Medicine, Athens, Ga., is described by Dr. Jack R. Palmer of the school in a report to the *Journal of the American Veterinary Medical Association* (Aug.).

Donor animals, he suggests, can be recruited from the municipal pound. Blood for the dog blood bank might also come through contributions from animals whose owners have decided their dogs should "be put to sleep" because of infirmities of age or incurable disability.

Some animal hospitals maintain blood donor animals, but this is too costly for the average veterinarian.

Matching the blood of the dog donor

with that of the recipient, as is done for human blood transfusions, is considered necessary by some authorities but at the University of Georgia it is not.

Blood for transfusion or for a blood bank should come only from dogs free of bacterial infection, Dr. Palmer warns. The vacuum bottle with ACD preservative used for collecting and storing human blood for transfusions can be used for the canine blood banks.

Reporting with Dr. Palmer on the dog blood bank are two former students who worked with him in establishment of the bank at the university. They are Dr. Nancy S. Dorsey of New York and Dr. Frank A. Hayes of Columbus, Ga.

Science News Letter, August 21, 1954

## GEOPHYSICS

**Study Arctic Ice in  
Laboratory in Illinois**

See Front Cover

➤ SPECIMENS OF Arctic ice, snow and soil are continually being brought down from the far north to a laboratory at Wilmette, Ill., for testing by scientists as part of a program to improve living conditions, construction, transportation and other military operations in such places as Alaska and Greenland.

Three scientists of the Snow, Ice and Permafrost Research Establishment at Wilmette are shown on the cover of this week's SCIENCE NEWS LETTER working on an ice impressibility problem in a cold room laboratory. Left to right, they are Drs. Theodore R. Butkovich, George Rigsby and Joseph Landauer.

Permafrost, snow and ice seasonally cover up to one-fourth of the earth's land surface. In the Wilmette laboratory of the Army's Corps of Engineers, these materials are studied under simulated arctic conditions.

Science News Letter, August 21, 1954

## ENGINEERING

**Research Award Set Up  
For Student Engineers**

➤ ENGINEERING STUDENTS are being offered a \$2,000 enticement to conduct original research in aircraft and guided missile fuel systems. An annual research award established by the Aero Supply Manufacturing Company, Corry, Pa., will give \$1,000 to the student who makes the greatest contribution. Second and third place awards will be \$500 and \$300, respectively. Two \$100 consolation awards also will be granted.

The judging committee will include an officer of the Air Force's Air Research and Development Command, power plant engineers from airframe manufacturers, an engineering professor, a representative of the American Institute of Aviation and an Aero Supply research engineer.

Science News Letter, August 21, 1954

**IN SCIENCE**

## HORTICULTURE

**New Strawberry Breed  
Taking "Final Exams"**

➤ A NEW strawberry is taking its "final exams," the climax of three years of field tests at Rutgers University, the State University of New Jersey, in preparation for commercial distribution.

The strawberry breed will probably graduate summa cum laude, the fruit's developer, Ernest G. Christ, said.

Upon successful completion of exams, the berry, now called New Jersey 7-A, will be re-christened with some distinctive name such as "Sparkle," "Redwing" and "Red-crop," three strawberry alumni of the University. These three strains make up the bulk of New Jersey's berry crop.

Altogether, only six strawberry strains have graduated from the university since 1928. During those 25 years, 55,000 new strains have been developed and discarded after testing.

Each strawberry breed is thus an 8,000-to-one shot.

With his staff, Mr. Christ is looking for bigger and sweeter fruit. They seek berries that will keep and ship well, and that will resist insects and plant diseases.

Science News Letter, August 21, 1954

## OPTICS

**Launch Five-Year Study  
Of How Human Eye Sees**

➤ A FIVE-YEAR study of exactly how the human eye sees is being launched at the University of California at Los Angeles.

This comprehensive investigation of the mechanism of vision is under the direction of Dr. Frederick Crescitelli, professor of zoology, and is supported by the U. S. Public Health Service.

Key to the visual process, Dr. Crescitelli points out, lies in pigments stored in visual sense cells, the rods and cones, so-called because of their shape.

Much is known about pigments in the rods, whose function is concerned with seeing in dim light. Visual purple is the primary rod pigment. A series of colorful chemical changes, initiated when light hits this sensitive pigment, apparently furnishes energy to send impulses to the brain via the optic nerve.

However, little is known about the cone pigments, which are responsible for seeing in the daytime and for color vision.

Initially, the investigation will be concerned with a broad range of animals in an effort to isolate and compare different types of visual pigments and to determine their role in visual processes.

Science News Letter, August 21, 1954

# CE FIELDS

## PEDIATRICS

### Baby's Wrinkled Brow May Mean Migraine

➤ WHEN A baby wrinkles his forehead, rubs his head, is restless and cries, he may be suffering from a migraine headache.

The malady can attack a baby as young as two weeks, though the diagnosis cannot be made definitely until the child is older, Dr. Jerome Glaser of Rochester, N. Y., reports to the American Medical Association.

Dr. Glaser himself has seen migraine in a three-year-old girl. He thought it was migraine because she "would act as though in pain, would pat one side of her head, and would constantly repeat the single word 'hurt.' These attacks were followed by abdominal pain, nausea and vomiting."

A doctor can tell definitely that a baby or small child has been having migraine headaches if, when the child is older, he complains of headache while having the same symptoms he had when a baby.

Eye trouble and allergy to foods, especially chocolate, egg, wheat and milk, are common causes of migraine headaches in babies and small children, Dr. Glaser finds.

His medical report on migraine in babies appears in the A.M.A.'s *American Journal of Diseases of Children* (July).

Science News Letter, August 21, 1954

## PSYCHOLOGY

### Farm Mothers Need Child Care Facts

➤ THE FARM mother needs accurate information and reassurance to help her in the care of her children.

This conclusion is based on a study of the way the children are cared for in 641 farm families in Ohio. The age of the parents studied ranged from 21 to 50, and their education from third grade through four years of college. The study was by Dr. Ruth Roeflin of Ohio State University, and results are published in the *Journal of Genetic Psychology* (June).

Neither the age of the parents nor their education has much to do with how well they bring up their children, it was found. Families with the best brought up children are from all income levels and all grades of social standing.

The farm mother is still old-fashioned enough to listen to relatives and friends, particularly the child's grandmothers, for guidance in the little one's care. Magazines, books, and bulletins on child care, however, are a close second to relatives as an aid to the mother. Printed matter is in the lead as an assistance to the mothers of the best brought up children.

Those interested in preschool children and their parents should remember that no single type of child care aid or advice will fit the needs of all families or even all the children in one family, Dr. Hoeflin points out.

"Too much emphasis cannot be laid on the fact that the farm mother is a very busy person who not only does her housework and rears her children, but usually helps her husband with the farm work," Dr. Hoeflin says.

There is a need for short bulletins or leaflets, simply written and cleverly illustrated, she declares.

Experts from various branches of science, medicine and education could well cooperate in furnishing the farm mother with simple, accurate child care information.

Science News Letter, August 21, 1954

## VITAL STATISTICS

### Catastrophic Deaths Cut in Half This Year

➤ THE YEAR 1954 has been safer so far than last year or than the first six months of most of the last 15 years, statisticians of the Metropolitan Life Insurance Company in New York report.

Less than half the number of lives have been lost in catastrophic accidents, such as tornadoes, transportation accidents and big fires. The death toll so far this year in accidents in which five or more were killed has totaled slightly over 500.

The greatest decreases were in civilian aviation catastrophes and tornadoes. Only 21 fatalities were recorded in civilian aviation, compared to 172 last year. Major tornadoes claimed less than 10 lives so far this year, compared to more than 400 last year.

The largest single catastrophe this year was the flood in southwest Texas which cost 23 lives.

Compared to last year, there was a slight increase in catastrophic deaths in military aviation and in dwelling and apartment fires.

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## PUBLIC HEALTH

### Elbow-Knee Infection Hazard to Swimmers

➤ THE ELBOWS and knees of swimmers may be attacked by a new type of infection which is something like skin tuberculosis. The infection is almost epidemic at some pools, Dr. Francis T. Hodges of San Francisco warns in GP (Aug.), official journal of the American Academy of General Practice.

The elbow-knee infection is in addition to other germ infections that may attack swimmers.

Unless precautions are taken, Dr. Hodges said, the swimming pool can be a community culture broth, spreading the gamut of disease and germs to everyone in the pool.

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## PSYCHOLOGY

### Five Basic Needs Of Widows Determined

➤ IMAGINE THAT you are a widow. How would you answer the question: "If you had only three wishes, what would you wish for?"

This was one of the questions asked recently by Dr. George Fitzelle of the University of California at Los Angeles when he interviewed 76 widows between the ages of 55 and 84.

Dr. Fitzelle's research was aimed at determining the basic physical and emotional needs of women who have lost their husbands and have few prospects of remarrying.

Most frequently cited by the widowed interviewees, all of whom were of normal emotional adjustment and relatively free of financial need, were these five basic needs:

1. Physical health and comfort.
2. Need to be useful.
3. Need to believe in something lasting.
4. Need to love and be loved.
5. Need for emotional security and freedom from anxiety.

Most of the widows who listed health needs first were not dissatisfied with their present health, says Dr. Fitzelle, but were fearful that any worsening of their health would make them dependent on others.

The U.C.L.A. professor found that, in general, the women who expressed the most altruistic wishes had higher emotional adjustment scores than those who did not.

Science News Letter, August 21, 1954

## VETERINARY MEDICINE

### Oil-Based Insecticides Cause Calf Skin Trouble

➤ THE OIL used as a base for many animal insecticides can cause a serious skin trouble when sprayed on calves, tests at the University of Wisconsin have indicated.

The skin of calves sprayed with mineral seal oil or insecticides that use the oil as a base became wrinkled and thick, particularly about the neck and shoulders. Then, a horny layer developed which cracked open in many places.

The skin trouble began to appear within one week of the first spraying. The calves were sprayed three times a week. Unsprayed calves in the same group had no skin trouble of this type.

As a result of the study concerning oil-based insecticides, scientists at the University recommend that calves be sprayed only with water emulsion or wettable powder insecticides.

In spraying older livestock with oil-based products, they caution, the manufacturer's directions should be followed closely.

The manufacture of spray oils which do not produce skin ailments may be possible, the university men believe, if scientists are able to isolate the particular material in the oils that causes the trouble.

Science News Letter, August 21, 1954