

PSYCHOLOGY

Pick Future Delinquents

► TESTS THAT show promise of spotting potential juvenile delinquents before they become delinquent are now being developed at the University of California.

Dr. T. R. Sarbin, associate professor of psychology, is working to develop a battery of special tests to pick out potential delinquents before they reach high school age. If this can be done, such youngsters can be given special attention to prevent them from becoming social problems.

For the past two years the psychologist has been conducting studies of 100 boys between the ages of 14 and 17. About half are normal boys from a city high school; the remainder are psychopathic delinquents from state institutions.

The object is to develop simple tests that show significant differences between normals and delinquents. Then when youngsters give answers characteristic of the abnormal patterns, they may be potential delinquents.

Two tests are already promising. In one, the youngster copies geometrical figures on a piece of paper. When no restriction is placed on the copying, delinquents respond as accurately as normal boys. But when

limits are imposed, such as drawing the figures on small pieces of paper, the accuracy of the delinquents breaks down immediately. This indicates the inability of delinquents to tolerate limits on their behavior.

In a second test, youngsters see motion pictures in which other youngsters make decisions about situations they are faced with. When the picture is over, the subject is told that the boy in the picture was given a preference test concerning occupations and recreational interests. The subject is then asked to guess what choices the boy in the movie made. The subject is then told whether he is right or wrong about each guess, and is given additional items in the preference test.

The psychologists find that psychopathic delinquents do not seem to "learn" how to make correct analyses of others, but that normal youngsters make better guesses as they are given more experience.

Collaborators with Dr. Sarbin are Dr. Norman Livson, Bela Baker and D. S. Jones of the University of California, and Prof. Paul Wallin, Stanford sociologist.

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damage is increased by spray applications from airplanes.

The situation has caused cotton states to take elaborate measures to protect cotton growers. In some states purchases of 2,4-D, 2,4,5-T and related hormone-type herbicides must be registered as in the case of narcotic drugs.

Texas requires that a surety bond of \$20,000 be posted before permission may be obtained to apply 2,4-D. Other regulations specify minimum distances from susceptible crops.

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ENTOMOLOGY

Pink Bollworm Spreads

► FRANTIC EFFORTS by cotton-belt states have slowed but not halted the spread of destructive pink bollworms. The U. S. Department of Agriculture's Bureau of Entomology and Plant Quarantine has reported discovery of the insect in Arkansas for the first time.

The bollworm is rated as potentially equal to the billion-dollar boll weevil in destructiveness. In 1952, it did more than \$28,000,000 damage in 38 south Texas counties.

Pink bollworm is now largely confined to parts of Texas, Oklahoma, Louisiana and Arizona. Each year, however, its range of destruction is slightly increased.

Unusual weather conditions have contributed to the recent quickened spread in the opinion of experts. These conditions have held back control measures at critical periods of the bollworm's life cycle, allowing a large increase in the bollworm population.

States and counties have drastic quarantine regulations to control the insect. Border patrols this year intercepted several hundred specimens being transported out of infested areas in cotton seeds and plants.

Pink bollworm was first found in Hearn, Tex., in 1917. Since that time its spread has been slow but sure. In addition to spreading by transportation of infected cotton, the adult moths have a small flying

range that may be greatly extended if they are caught in strong air currents.

Every known method of suppression, from insecticides to natural parasites, is being used in the fight against the bollworm. Compared to the quick spread of the boll weevil, the bollworm has been held down for many years, but the fight is far from over for hard-pressed cotton growers.

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AGRICULTURE

Weed Killer Causes Cotton-Rice War

► WAR BETWEEN rice and cotton growers in the delta area of Mississippi has broken out over the weedkiller, 2,4-D, Dr. Ross E. Hutchins of Mississippi State College reports in *Science* (Dec. 25, 1953).

Rice growers have been using the herbicide to control coffee-weed in their fields. The difficulty is that cotton is "almost fantastically sensitive to 2,4-D and related compounds," Dr. Hutchins says.

Cotton growers now have damage suits totaling several hundred thousand dollars before the courts.

Dr. Hutchins points out that it is not unusual for severe damage to cotton plants to occur four or five miles away from ground applications of 2,4-D, and that this