

AGRICULTURE

**Picking by Machine
Cheaper Than Hand Labor**

➤ TO USE mechanized cotton pickers or handpickers with their long sacks? That is the \$64 question that many cotton growers ask themselves at harvest season—proving that the machine has not yet won out.

Mechanized cotton pickers do not have to be paid wages, but there is the steep initial investment, depreciation, taxes, insurance, interest if purchased on time, gasoline and oil.

Trimble R. Hedges of the agricultural economics division of the University of California at Davis and Warren R. Bailey of the U. S. Department of Agriculture recently made a study of cotton picking in relation to the cotton acreage of California's San Joaquin Valley.

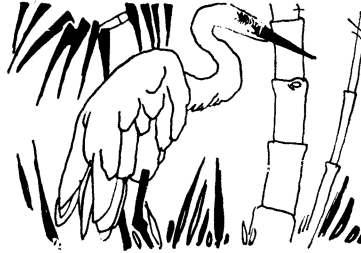
These were their conclusions:

In spite of the hidden costs of the mechanical cotton picker it is still cheaper than hand picking—especially if the seasonal crop exceeds 200 bales.

Basing their study on the 1949 experience of 63 California cotton growers, Mr. Hedges and Mr. Bailey found an advantage of almost \$19 per bale in favor of the machine.

But to maintain this advantage, they pointed out, the grower must (1) keep picking drums free of dirt, grease and soiled cotton; (2) moisten spindles as lightly as possible; (3) pick during most favorable weather conditions; (4) plant his crop with mechanical harvesting in mind.

Science News Letter, January 6, 1951



Egret

➤ COVERING the southern tip of Florida is a watery, mangrove-choked wasteland which is the newest U. S. national park. To the Everglades, visitors from the frozen north will throng by the thousands this winter. They will come to see, not majestic mountains or towering waterfalls, but strange plants and beautiful birds.

The southern Everglades swarm with bird life, and naturally a great many of the birds are those which frequent water or the water's edge. In the Everglades there is a lot of water. Of all the tropical swimming or wading birds there none are more beautiful than the herons, and of the herons none is more lovely than the egret.

ZOOLOGY

Hormone Papers Honored

➤ FIVE PAPERS outlining discovery of a new hormone and description of the "growth machine" of the Cecropia caterpillar won for Dr. Carroll M. Williams of Harvard the American Association for the Advancement of Science \$1000 prize for the best paper presented at the annual Christmas meeting in Cleveland.

Dr. Williams, 34-year-old associate professor of zoology, and six associates described a metamorphosis hormone which presides over the synthesis of the cytochrome system in the giant caterpillar. The same enzyme system exists in humans and is the means whereby humans utilize oxygen.

"It seems possible," Dr. Williams said, "that abnormal growth, which we know as malignant disease, may result from the utilization of other enzymes which bypass the normal controlling mechanism coupled to the cytochrome system."

One of the papers told how the metamorphosis hormone affects the insect's latent knowledge of how to spin a cocoon. Study of this predictable pattern of behavior may result in further knowledge of the unpre-

This snowy bird is not so large as some of his cousins. It is a good-sized fowl, standing about two feet from beak to stern, but it is dwarfed in size by other herons or "cranes" which tower on spindly legs and soar on wide-stretched wings.

To ornithologists the true egret is "*Egretta candidissima*"—the whitest egret. He has a taller relative, with a few colored feathers. Both birds bear, during the nesting season, the delicate plumes once used in vast quantities to adorn milady's feathered hat.

Hunting these "aigrettes" threatened the very existence of birds which grew in quiet glory before man came. Even today, poaching is a considerable menace, although there are protective laws practically everywhere the egret might fly. These are well enforced, thanks to public sentiment and the National Audubon Society. Today there are egret colonies even in populated areas, near cities and tourist routes.

There is no reason why the North should not have its colonies of egrets as well as the South. The birds once nested as far north as Indiana. They retreated to their present restricted range, from North Carolina south and west to Louisiana, partly because too many two-legged inhabitants moved into their homelands, and partly because fashionable ladies demanded feathers of brilliant hues for their vanity. And there were men who catered to those demands, heedless of the near extinction of one of America's most lovely creatures.

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dictable behavior of other animals and humans, it was said.

Dr. Williams' associates in presentation of the five papers were: Dr. Richard C. Sanborn, Dr. Janet Passonneau, William Van der Kloot, Howard A. Schneidermann, Ned Feder and William H. Telfer.

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YOSEMITE FIELD SCHOOL
 A Workshop in Interpretive Methods

Twenty selected college graduates will have the opportunity to spend the summer in Yosemite National Park under the tutelage of the National Park Service Naturalist Division. They will receive intensive, varied training in the presentation of natural and human history to the public, and in the techniques of interpretation on nature walks, with children, at campfires.

Also considered will be related matter such as museum methods and the use of museum and library materials. Twelve days will be spent in the High Sierra, an opportunity for maturing, exhilarating personal experience.

Students pay own expenses, plus modest incidental fee. Application deadline, February 28. For prospectus, address:

Director, Yosemite Field School
 Box 545
 Yosemite National Park, California

