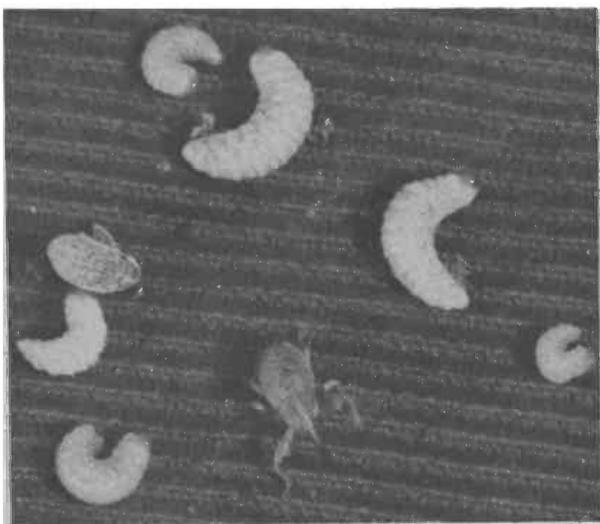


STUB COTTON PROVIDES H



Western boll weevil (at left)—2 adults, 2 full-grown larvae and 4 immature larvae; taken from two short staple cotton bolls in Pima County, 1964.

Wild cotton (in photo below) commonly called thurberia, natural host of the Western boll weevil.



A few fields of cotton in central Arizona were infested by the boll weevil, *Anthonomus grandis thurberiae*. Under favorable conditions for this weevil to overwinter, the weevil infested the first cotton squares available in the field.

Live weevils were found from the stub cotton, which remained on the ground in the edge of the field ground.

Early spring irrigation softened the stub cotton produced green foliage and cotton was available, thus preventing the weevil from infesting the cotton.

Four generations of weevils had infested the stub cotton. An occasional punctured square could be seen in the stub cotton. Infestations in planted cotton did not occur until populations that built up during the stub cotton the latter part of September. In some areas much more rapidly than in areas where infestations elsewhere resulted entirely from thurberia or wild cotton. The picture shows the stub cotton plant on the left, well-irrigated, and the last year's broken stub at the base of the stub plant as result of weevil damage.

Mr. Bottger is Investigations Leader, Cotton Research Station, University of Arizona, and cooperates with the University of Arizona.

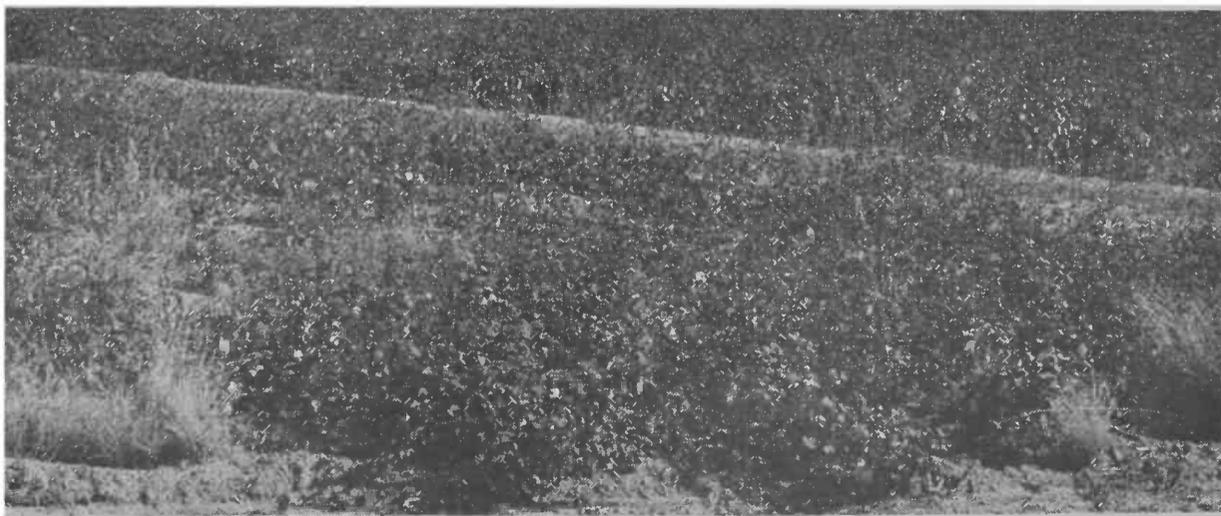
Planted field of short staple cotton in Pinal County, Arizona, below. Note heavy yield of open squares.



Stub cotton plant on left, well-irrigated, and the last year's broken stub at the base of the stub plant as result of weevil damage.



Below is photo of portion of field of short staple stub cotton in Pinal County, as it looked Oct. 27, 1964. Note absence of bolls on middle and upper portions of plants. Weevils were causing loss of squares in this cotton early in June. Grower estimates weevil damage at 1½ bales per acre.



FOR WESTERN BOLL WEEVIL

were infested with the western boll and stubbed in 1964 provided excellent a generation of boll weevils on

l within their pupal cells in the bolls during the winter, thus making hibernation unnecessary.

released the weevils from their cells. The weevils could feed before planted cot-

ton by August 6, whereas only stubbed cotton at that time. As usual, in September. However, the extremely high boll weevil populations to increase in these cotton was grown. Thus the late light emerging after the summer rains from

Entomology Research Division, ARS, USDA,

field of stub cotton shown at left portions of plants.



seed at right. Note on stub plant most barren top two-thirds of the August.



At right, weevil-infested cotton boll showing several mature larvae and how their feeding has damaged the boll.



In photo below, yield from the two plants at bottom center. Weevil-infested bolls at top, open bolls in the center and green bolls below. Many of these will still mature. Picture taken Oct. 27.



In photo below are shown, at top, three typically weevil-damaged bolls and, below them, three non-damaged bolls of mature cotton from the same plant.

