



HARVESTING STAGE

When first capsule opens

Two to three picking as cotton does not mature at a time

In favourable condition cotton plants continue to develop and leaves remain green

In areas with a dry season or cold winter vegetative growth slows

Leaves wither and fall

It facilitates harvesting



**Manual harvesting:
25 – 45 man days/ ha**



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Methods to facilitate harvesting

Defoliation

Chemical (Defoliant) applied 15 days before harvesting to kill the leaves and the leaves fall

Plant is not affected

Capsule continues to mature

Ensure 60-70% capsules are matured

Cotton pickers are suitable for this method

Desiccation

Chemical applied to cease the growth of the plants accompanied by leaves fall

70 – 80% capsules must be matured

Suitable for cotton stripper

Types of cotton harvester

COTTON PICKER

Rotating drum
harvester

Picks the matured
cotton

Cotton is relatively
clean

COTTON STRIPPER

Harvester with **inclined
rollers or fingers**

Pulls off the capsule

Impure cotton with a lot
of trash (immature
bolls, leaves etc)

Requires further
cleaning



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COTTON STRIPPER



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COTTON STRIPPER JOHN DEERE



Horsepower

190

Basket Capacity⁵

808 cu. ft.



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COTTON STRIPER

Strippers preferred over picker- why?

Low first cost

Low maintenance

Better adopted to stripping with improved variety

Improved strippers having flexible rolls to separate green bolls, first stage cleaning

Improved ginning equipment for separation of trash

Better for closed row spacing

Good recovery of cotton

Higher operating speed



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Principle of stripping

Forcing the cotton plants through an area for the bolls to pass.

The plants remain rooted to the soil

The bolls are snapped

In removing the bolls, a forward & upward force is applied on the bolls

Current models are either brush type or finger type



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Brush type stripper

Used on single row

A pair of rolls at 30° angle to the horizontal

1020 mm long & 150 mm dia.

Roll surface has longitudinal brushes alternated with rubber flaps

Rolls move upward next to the plants at 600 rpm

Bolls snapped off and conveyed over the surface of the rolls

Flexibility of the surface adjust to the light and heavy growth of the cotton

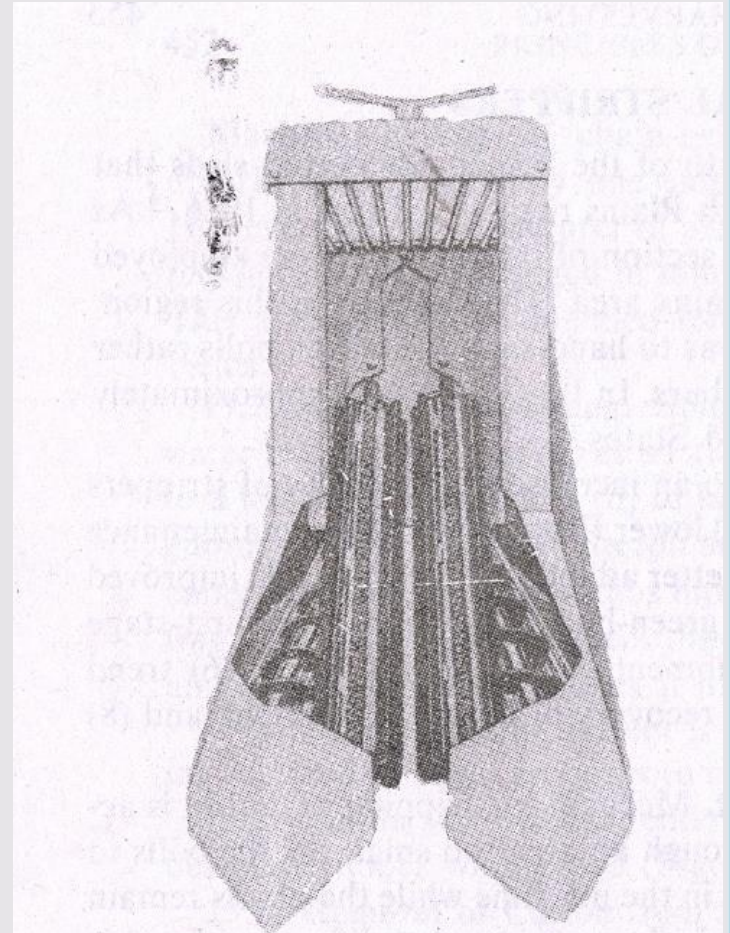


Fig. 19.4. Brush-type cotton stripper. The rolls are fitted with longitudinal brushes alternated with rubber paddles. Cotton bolls are discharged from the rolls into auger conveyor. (Courtesy of Hesston Corp.)



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FINGER TYPE STRIPPER

Fingers comb upward through the plants as the stripper moves forward

Entire plant to pass through the narrow fingers

Continuous width finger can strip cotton from any row spacing or **random plantings**

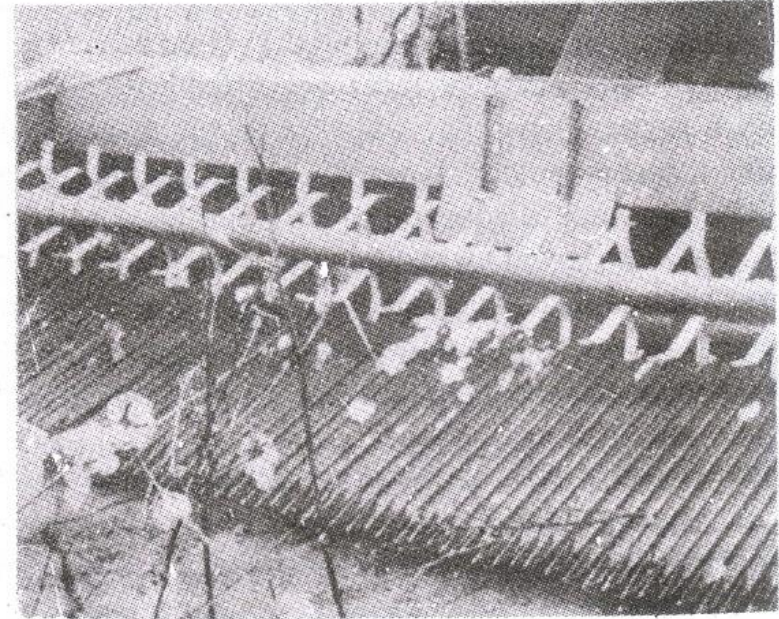
Simpler and less expensive, less maintenance

Not work well in **damp condition** if the plants have not been well defoliated

Also not work well if the plants are large and heavily branched

This condition encountered in irrigated narrow row planting.

(Courtesy of Hesston Corp.)



A continuous-width finger-type stripper. The space between fingers
The reel above the rear ends of the fingers pushes detached bo