

**VARIOUS OPTIONS DEVELOPED, DEMONSTRATED AND SOME MANUFACTURED  
SINCE 1970'S FOR HARVESTING BURLEY TOBACCO**



Manual Cutting - the traditional way...

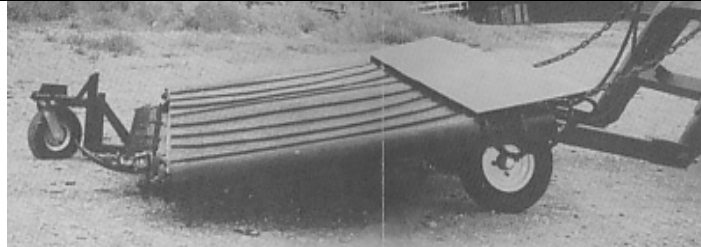
One person cutting & 'spiking' or 'spearing' is the predominant way! Other ways use two workers: 1 cut, 1 spike/spear, or cut & lay down, later pick up & spike/spear, 3-5 Wkr-hr/ac dropping sticks, hiboy used if available, 12-20 wkr-hr/ac cutting, 75-150 sticks/hr rate

**TOBACCO STICK RELATED MACHINES**



"BURLEY CUTTER"

Ky. farmer developed 1970s, walk-beside & spear, none built



"TABACOBINE" (above right & →)  
Ky. farmer developed in late 1980s, tractor mtd., cuts 2 rows & windrows, then hand spike, a few machines built, approx. \$4,500 ea.

Mechanical Cutting Devices - some farmer innovations

**Self-propelled, riding harvesting aids:**



Harvesting Aid - ARS-U.KY. Model

ARS-U. KY. research developed late 1970s. 2-3 built commercially.



Harvesting Aid - Four Star Model

U. KY. research developed mid 1980s, mfd. by Four Star, Inc, approx. 250 Built 1982-1995, a few still in operation, \$6,000 last mfr. list price, 1 Worker, 120 – 150 Sticks/hr, 0.8 - 1.0 ac/day



Harvesting Aid - "The Green Machine"

TN Farmer developed model, approx. 60 Built 1990-2003, several still in operation, \$6,000 last mfr. list price, 1, 2 or 3 workers, 120 – 180 Sticks/hr, 0.8 - 1.0 ac/day



Harvesting Aid - "York Burley Cutter"

KY farmer developed in early 2000s, quoted \$11,500 price, no others built as far as known, 2-3 workers, actual harv. rate unknown

### Mechanical Spearing Machines:



"Burley Spiker" Machine

U.KY research prototype developed in mid 1990s, mechanically impales plants onto stick, one commercial model built 1995 by Taylor Mfg., \$16,000 mfr. list price, used uniform length wooden sticks, 2 workers, 150 – 200 sticks/hr, 0.9 – 1.2 ac/day potential



"DeCloet Burley Harvester"

KY Entrepreneur & machine shop developed in mid 1990s, mechanically impales plants onto stick, uses uniform wooden sticks, approx. 6 built and sold by DeCloet Mfg., 2 workers, actual harv. rate unknown

**CUTTING-NOTCHING DEVICES & MACHINES:**



U. Md. walk-behind, mid 1980s



U.Ky. Mini-HiBoy towed, early 1990s



N. Car. St. U. walk-behind, late 1990s

Some Cutting-Notching Devices Demonstrated



Towed, Notching Harvester



U.KY research developed in mid 1980s, approx. 12 built 1990-1995, \$30,000 mfr. List price, uses special wire-strung wooden frames @ 24-25/ac, cost \$1,800-\$2,200/ac, 5-8 year life, 5-6 Workers, 2 tractors, 1 w/Front Loader, 1.8-2.0 ac/day, 4-5 wkr-hr/ac for plastic covering.



Automated Harvester (notching)



U.KY. research prototype, Uses special metal frames @ 14/ac., 2 workers, 1 tractor-loader, capable of 4-5 ac/day, (Product prices undetermined)

<p><b>And, Yes, some leaf harvesting methods evaluated...</b></p>	
<div> </div> <p>Machine assisted hand priming</p>	<p>Priming aids evaluated in mid 1970s</p>
<div> </div> <p>Mechanical leaf harvester</p>	<p>Leaf harvester evaluated in mid-late 1970s</p>
<p><b>Various curing methods and options in next section...</b></p>	

by George Duncan, Larry Wells and Linus Walton, U. Ky., 3-28-05