



fair products, inc.



## MODERN TOBACCO GROWERS



News and events about the tobacco industry...from the grower's point of view.

### **STRAIGHT TALK:**

It is extremely important that you read the below article. You are encouraged to think positive as this could be the way of our near future. If you have any questions, please call Dr. Bill Collins.

### **HARVEST LABOR COSTS COULD BE GREATLY REDUCED**

W. K. Collins

Tobacco growers have numerous concerns about tobacco production. The two most frequent concerns expressed relate to labor and energy costs, particularly the costs of curing fuel. Between the two concerns, labor is usually more important than energy.

This article is about some of my thoughts addressing and dealing with the large amount of labor needed to harvest flue-cured tobacco. I believe it is imperative that

buyers, growers, and those in the tobacco equipment business must and can address the labor issue associated with harvesting flue-cured tobacco.

The time has come when we must mechanize harvesting more to remain profitable and possibly increase production, or buyers must pay much more for purchases which is not likely to happen. If prices increase much, buyers would be encouraged to source their purchases in other countries.

Most tobacco growers are using 50 to 100 hours of labor to produce an acre of tobacco. A major part of this labor is associated with the harvest period. This labor usage could be reduced by adapting already researched technology. Cut-strip harvest and curing offers tobacco farmers a great opportunity to drastically reduce the labor requirements associated with tobacco harvesting.

Tobacco that is mechanically harvested would pass through a cutter at the barn and distributed into the curing boxes. The chopped pieces of leaf are about the size of one's hand. The size could be changed by adjustments on the cutter. Buyers would have to make changes in processing but no bigger changes than going from processing bundle tobacco to tangled loose leaves. About one-third of the cut-strip tobacco would not contain midribs (commonly called stems).

Research on cut-strip tobacco was done about 35 years ago and lots of research was done in the 90s. All of this was ahead of its time but now the costs of labor and all that goes with having legal and non-legal labor represents a very changed situation.

The major survival "kit" tobacco has experienced down through the years has been the reduction of labor by mechanization. Associated practices have also played a big role in "mechanization," such as higher yielding varieties, greenhouse plant production, mechanical transplanting, use of higher analysis fertilizers, chemical weed control, chemical sucker control, mechanical harvesting, bulk curing especially in big boxes of unaligned leaves, and baling. Before this, selling non-aligned loose leaves faced significant resistance even though selling loose leaves was normal in southern markets. During this period, loose leaf tobacco was trucked to Georgia and sometimes returned to leaf processors in North Carolina on the same truck!

Curing cut-strip leaves is a significant problem if the cut leaves are wet at all. Only dry green leaves should be evenly distributed in big boxes. The forced air can be expected to cure the cut strips normally. In fact forced air may pass through cut leaves better compared to whole leaves. In a given box about 50% more cut-strip tobacco can be placed in the box. This would provide the grower the opportunity to increase plantings about 50% without buying more bulk barns. Bulk barn capacity has become the limiting factor on many farms. Most growers are hesitant about buying new bulk barns at the present time.

If labor can be greatly reduced and the per acre costs of bulk barns reduced, growers could be in a more competitive position than currently. It has been reported that cut-strip tobacco does not smoke as well as normal tobacco. This is said to be related to slightly elevated starch levels related to the bruising of the leaves by the cutters. Dr. Mike Boyette, the same person who pioneered baling, believes the bruising could be reduced by changes in the cutting operations. Also, sugars may be less than normal but within the normal range of acceptance.

If the quality of the leaf is reduced, by comparison the industry has found ways to use the midrib of leaves. The industry has developed a vast amount of manufacturing technology that is used routinely in the manufacture of products. At one time the midrib of leaves (20-25% of a leaf) was considered waste and discarded on yards, etc., and used in fertilizer. (We didn't know that the tobacco mosaic virus could be carried from infected stems to the field for possible infection of plants in the field.)

Some history from a recent book "Mechanization and Labor Reduction, A History of U.S. Flue-Cured Tobacco Production, 1950-2008" by Dr. Larry Sykes is:

"In the late 1940's, the average yield per acre was around 1200 pounds per acre. Then it required 22.5 minutes of labor to produce and market one pound of tobacco. Today an efficient flue-cured grower can produce a crop with as few as 50 man-hours per acre with yields of about 3000 pounds per acre. This is about one minute of labor per pound of marketable leaf."

My call is that it is time to activate the cut-strip initiative. Adoption of this technology would greatly increase the U.S. competitive position in the world. Most countries are unlikely to adopt this technology.

There are only about 2000 flue-cured tobacco growers remaining the U.S. Reduced profits and alternative profitable enterprises such as sweet potatoes, corn, soybeans, and small grains have caused many growers to move away from tobacco or to move into larger operations; however, at present I understand buyers would like to have more contract growers. Some relief on the labor situation would be very helpful to them to expand, especially if this can be done by putting 50% more tobacco in a given barn. Growers could profit more and be in a financial position to invest in curing equipment such as using wood fuel at a fuel cost of about five cents per pound of cured leaf! Some growers are already using wood for curing fuel. Many growers have fuel costs in excess of 15 cents per pound of cured leaf.