

Agronomy *notes*

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Stripping Burley Tobacco into Grades

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Stripping burley tobacco into different grades has been a controversial topic for many years. The one-price years in the mid to late 80's provided no incentive to the producer to strip into the appropriate grades. However, with the advent of contracting in the year 2000, many companies are suggesting four grades but still get a high percentage of three-grade tobacco. Tobacco companies can utilize a small percentage of mixed stripped tobacco, but the handling characteristics of the four stalk positions differ substantially during processing. As the companies make their blends, they look for specific characteristics that differ from grade to grade. A look at the 2001 variety test plots

provides some insight into this topic. Although the variety test plot protocol for 2001 called for four grades, some cooperators stripped trials into three grades. A comparison of the percentages stripped into each grade reveals the different distribution of leaves between three-grade and four-grade tobacco.

Nineteen variety tests were conducted in 2001; five were stripped into three grades and 14 into four grades. Table 1 lists percentages for each grade for Hybrid 403 and TN 90. Ten other varieties were included in the original variety trials, but are not included in this paper.

Table 1: Percentage of Tobacco Stripped into Three Grades versus Four Grades

	3 grades	4 grades	3 grades	4 grades
Variety	Hybrid 403	Hybrid 403	TN 90	TN 90
Tips	23.50	15.83	25.58	17.31
Leaf		36.43		34.53
Lugs	55.89	30.55	54.86	31.24
Flyings	20.61	17.21	19.54	17.25

Tobacco stripped into three grades is typically grouped into flyings, lugs, and a leaf/tip grade (Table 2). With three-grade tobacco, producers tend to strip too high on the first grade and start too soon on the tips. Producers who strip their tobacco into four grades typically grouped it into the four appropriate grades (flyings, lugs, leaf and tips) that are true to Federal Grade description. This could change the grades from those listed for four grades in Table 4 to those listed in Table 3.

With four grades, one to two fewer leaves are stripped with the flyings, producing

approximately 4% less than with three-grade tobacco. In addition, the leaf grade received a slightly higher percentage or approximately one more leaf than the lugs in four-grade tobacco. The top grade represents a true tip in the four-grade tobacco, but most likely a leaf grade in three-grade tobacco. Three-grade tobacco generally will have a mixture of flyings and lugs in the first grade, a mixture of lugs and leaf in the second grade and a mixture of leaf and tips in the third grade. (**Note:** the corresponding prices associated with each grade in Tables 3 and 4 are from a contracting price sheet and may not represent all contracting situations.)

Table 2: Average Leaves per Grade Based on a 24 Leaf Topping Height

	3 grades	4 grades	3 grades	4 grades
Variety	Hybrid 403	Hybrid 403	TN 90	TN 90
Tips	5.01	3.80	5.43	4.15
Leaf		8.74		8.29
Lugs	13.96	7.33	14.04	7.42
Flyings	5.03	4.13	4.53	4.14

Table 3: Projected Grades and Price for a Three-Grade Tobacco

Flyings	Lugs	Leaf/Tips
C2	B2	B2
\$1.94	\$1.97	\$1.97

Table 4: Projected Grades and Price for Four-Grade Tobacco

Flyings	Lugs	Leaf	Tips
X1	C1	B1	T1
\$2.02	\$1.98	\$2.01	\$2.12

If we assume a yield of 2700 lb/a as a good average yield, we can compare yields of each grade per acre in Table 5. TN 90 tends to produce more tobacco in the tips or leaf/tips grade than Hybrid 403. However, the difference is slight, averaging much less than a whole leaf. TN 90 produced the highest percentage of tips compared to other varieties included in the variety trials, but not listed in this paper. Stripping into four grades reduces the percentage of tobacco graded into the leaf grade, which is of lowered demand. Production of flyings is very similar for both varieties.

In Table 6, returns are calculated assuming that the grades in Tables 3 and 4 apply. If these trends hold true, then grading tobacco into four grades would yield approximately \$150 more per acre over three-grade tobacco. Even if the four-grade tobacco does not achieve first quality grades, but receives second quality grades, the return would still be approximately \$50 per acre greater than for three-grade tobacco. However, if a crop stripped into four stalk positions grade as second quality, the same crop stripped into three

stalk positions will most likely grade lower for some of the stalk positions. This would increase the difference in returns back closer to the \$150 range.

Note: both TN 90 and Hybrid 403 are capable of producing yields in excess of 2700 lb/a. However, they can consistently produce yields of 2700 lb/a under a wide range of growing conditions. Specific disease pressure or other yield influencing factors could cause either variety to yield more than the other. The use of a standard yield does not imply that these varieties are capable of equal yields under all growing conditions or even most growing conditions. Other varieties in the test produced similar strip yields for three and four grades and demonstrated the same trends.

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Table 5: Yield in lb/a per Stalk Position Based on 2700 lb/a.

	3 grades	4 grades	3 grades	4 grades
Variety	Hybrid 403	Hybrid 403	TN 90	TN 90
Tips	634	470	691	486
Leaf		1088		971
Lugs	1509	901	1481	844
Flyings	556	500	528	465

Table 6: Returns per Stalk Position Based on 2700 lb/a.

	3 grades	4 grades	3 grades	4 grades
Variety	Hybrid 403	Hybrid 403	TN 90	TN 90
Tips	\$1109.54	\$906.11	\$1237.20	\$990.82
Leaf		\$1977.06		\$1873.94
Lugs	\$3094.06	\$1633.20	\$2988.62	\$1652.98
Flyings	\$1097.88	\$938.63	\$1077.46	\$940.82
Total	\$5301.49	\$5455.00	\$5301.28	\$5458.57
