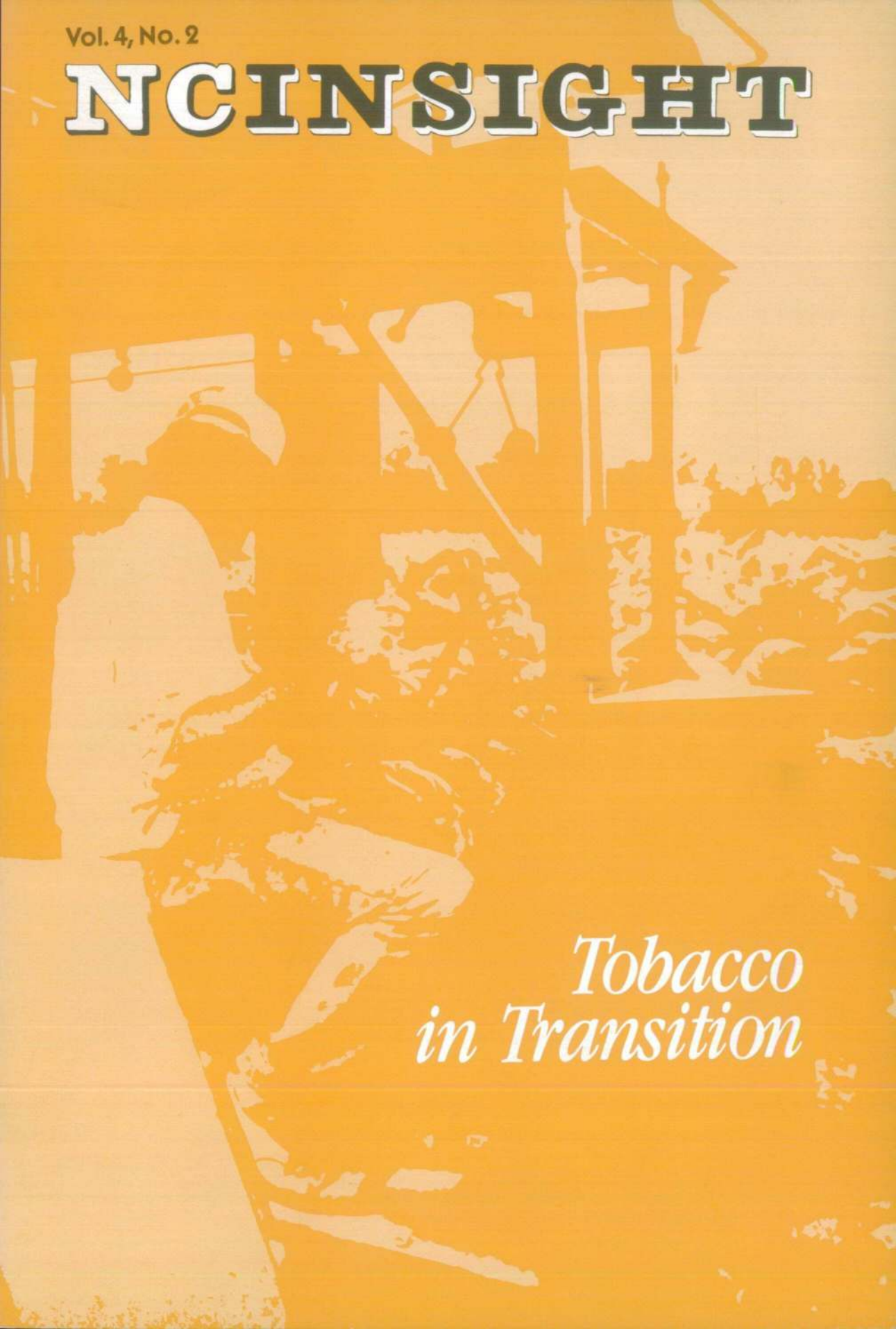
Vol. 4, No. 2

NCINSIGHT



Tobacco in Transition

N.C. Center for Public Policy Research

The North Carolina Center is an independent research and educational institution formed to study state government policies and practices without partisan bias or political intent. Its purpose is to enrich the dialogue between private citizens and public officials, and its constituency is the people of this state. The Center's broad institutional goal is the stimulation of greater interest in public affairs and a better understanding of the profound impact state government has each day on everyone in North Carolina.

A non-profit, non-partisan organization, the Center was formed in 1977 by a diverse group of private citizens "for the purposes of gathering, analyzing and disseminating information concerning North Carolina's institutions of government." It is guided by a self-electing Board of Directors, and has some 600 individual and corporate members across the state. The Center's staff of associate directors, fellows, and interns includes various scholars, students, journalists, and professionals from around the state. Several advisory boards provide members of the staff with expert guidance in specific fields such as education, publications, and fund raising. The Center is forbidden by law from lobbying or otherwise attempting to influence directly the passage of legislation.

Center projects include the issuance of special reports on major policy questions; the publication of a periodic magazine called *N.C. Insight;* the production of forums, seminars, and television documentaries; the maintenance of a speakers bureau; and the regular participation of members of the staff and the board in public affairs programs around the state. An attempt is made in the various projects undertaken by the Center to synthesize the integrity of scholarly research with the readability of good journalism. Each Center publication represents an effort to amplify conflicting views on the subject under study and to reach conclusions based on a sound rationalization of these competing ideas. Whenever possible, Center publications advance recommendations for changes in governmental policies and practices that would seem, based on our research, to hold promise for the improvement of government service to the people of North Carolina.

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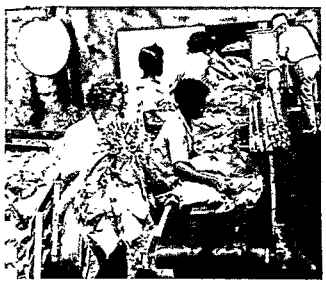

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A Word from the Editor...

In 1964, the U.S. Surgeon General concluded in his landmark report, *Smoking and Health,* that cigarettes are a health hazard. This finding prompted a series of studies and the implementation of many regulations that have permanently altered the western world's perception of tobacco. The most dramatic indication of smoker concern is the rising popularity of "low-tar" (15 milligrams or less) brands. As late as 1970, low-tar brands commanded less than 5 percent of the market; today, their share is almost 50 percent. American cigarette manufacturers are investing more and more of their resources in developing the Third World market, where few regulations on tobacco have been implemented and where per capita consumption is increasing.

While health concerns have refocused consumer demand and corporate futures in the last 15 years, transitions in agriculture and international trade have transformed the industry from production through distribution. As late as 1972, only 2 percent of the flue-cured crop was harvested mechanically; today the figure is approaching 50 percent. Mechanization, combined with such changes in the federal farm program as permitting the lease and transfer of allotments, has precipitated a labor displacement of irreversible proportions, a decrease in the number of tobacco farms, and an increase in farms that remain. From 1972 to 1979, in the major flue-cured belts, the farm management unit increased in size by almost a third (from 9.5 to 13.8 acres) while the number of operations declined at the same rate (40,500 to 29,000). In the coastal plain, labor use declined by almost 50 percent.

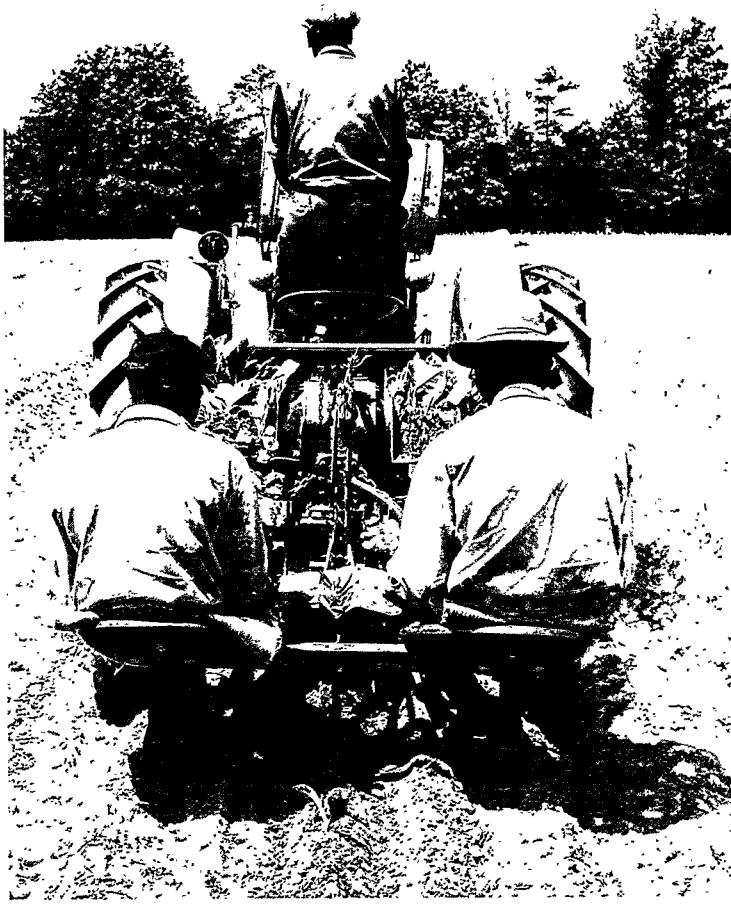
Meanwhile, tobacco production is expanding in Africa, Asia, and Latin America and now poses a serious threat to continued American dominance of the world leaf market. Total American exports have increased over the last 20 years, but the U.S. share of the world's flue-cured market has dropped from 61 percent in 1960 to 27 percent in 1979. Moreover, foreign tobaccos now compete with American quality but still cost only one-third to one-half as much. In 1980, for example, the federal price support level on leaf grade B4F, the "hub" tobacco for British buyers (the United Kingdom is one of America's largest markets) was $1.61 per pound. But British companies could buy a comparable grade from Brazil for $.68 per pound. While leaf buyers worry about the high American price, tobacco farmers, like all American farmers, are beset by inflation, energy costs, fertilizer prices, and a minimum wage on labor. They want the federal price support raised, not lowered.

Transitions are reshaping the tobacco economy swiftly – and in confusing, interrelated ways. For the past 18 months, the North Carolina Center for Public Policy Research has been studying these changes. This issue of *N.C. Insight* represents one product of that effort; an anthology of 30 articles by experts from throughout the world (*The Tobacco Industry in Transition: Policies for the 1980s,* Lexington Books, forthcoming 1981) is another. In the future, the Center might also sponsor seminars and other forums for discussion based on this tobacco project.

The anthology, expected to be on the market in September, addresses the central policy questions of the tobacco world within six sections: tobacco program and the farmer; alternatives for tobacco farmers; leaf marketing; manufacturing; health; and politics (see ad on pages 47-48). Within each section, a group of experts assess policy transitions, some as "objective" researchers and others with passion. On controversial topics, such as health, we include articles expressing opposite positions.

This issue of *N.C. Insight* includes material from the anthology as well as regular features, such as Ferrel Guillory's "Dateline Raleigh" column and an interview with a leading state policymaker, N.C. Commissioner of Agriculture James Graham.

While no collection of articles could substantially analyze all tobacco issues of importance, the products of our study are designed to provide an interdisciplinary understanding of tobacco to a wide range of readers – from scholars and experts to those with only a casual or limited interest in the subject.□



The Federal Tobacco Program: How It Works and Alternatives for Change

by Charles Pugh

Every economic sector requires periodic examination in order to fine-tune its operations, especially one that has been regulated in essentially the same manner for over 40 years. Under the Agricultural Adjustment Act (1938), as amended, the federal government restricts the supply of flue-cured and burley tobacco so as to keep the average price above the open-market level without using direct government subsidies. While the program has been adjusted during the last four decades by legislative amendment and administrative action, its major features have remained intact.

A two-seat tobacco planter in action.

This article draws on material from "Alternatives Regarding Production Controls and Price Supports for Tobacco" by Dr. Charles Pugh (Number Four in the Tobacco Marketing Policy Alternatives *series sponsored by the Cooperative Extension Services of the 13 Southern states and Puerto Rico, the U.S. Department of Agriculture, and the Farm Foundation, 1979) and on "Provisions of the Tobacco Program" by Charles Pugh and Dale Hoover (*Tar Heel Economist, *October, 1979). An extension economist at North Carolina State University, Dr. Pugh writes extensively on tobacco issues and conducts tobacco educational programs through the Extension Service. Photos courtesy of N.C. State University.*

Harvest method used throughout the flue-cured tobacco belt prior to 1971 when the mechanical harvester came on the market.

In recent years, groups within and without the tobacco industry have been questioning the 40-year-old program more vigorously than ever before. Anti-tobacco advocates point to the apparent inconsistency of the federal government having a tobacco program as well as anti-smoking programs. Leaf exporters wonder if the program has priced American tobacco out of the international market, where comparable grades are generally much cheaper. And farmers are complaining about the high cost of leasing quota, a production cost resulting from the tobacco support structure.

The tobacco program could be changed in any of three different ways:

1) A particular feature of the current program could be altered without abandoning its general approach. For example, price support levels could be changed upward or downward.
2) Options might be substituted for individual provisions of the current program to achieve the same purposes. For example, pools of surplus tobacco might be financed by loans from private sources or farmer check-off plans instead of by loans from the government.
3) Legislative actions could eliminate all government involvement in the tobacco program at the farm level. This would essentially involve a move to an open market in producing and marketing tobacco.

The Current Tobacco Program

The overall purpose of the program is to stabilize prices by restricting supply. To accomplish this, the program functions in an interlocking and interdependent way through four central features: a national marketing quota, individual farm quotas based on production history, price supports, and governmental funding of non-recourse loans. Other miscellaneous features are also important for the program to function properly.

National Marketing Quota. Each year, the U.S. Department of Agriculture (USDA) estimates the amount of tobacco which can sell in domestic and

export markets at prices above the year's price-support rate. (This estimate takes into account any existing stocks from previous years.) Based on this estimate, USDA sets an annual overall quota level for the country. Since tobacco typically is stored for aging, quotas can be adjusted to align total available supplies with the price-support level. And since tobacco has no close substitutes, restricting supply tends not only to stabilize prices, a function of most government commodity support programs, but also to raise prices.

Quotas must be approved by a two-thirds majority of allotment holders in a referendum every three years. Without quota approval, full price supports do not have to be offered. Since the Agricultural Adjustment Act passed in 1938, growers have disapproved quotas only once, in 1939.

Farm Quotas Based on Production History. Quotas are allocated to individual farms according to the production patterns that existed in the 1930s. Because quotas are tied to the land, the entry of new producers is restricted on a permanent basis unless they rent or purchase a farm having a quota. Historical assignment of quota has also resulted in tobacco production being essentially frozen in certain geographical areas.

Price-Support Authority. When marketing quotas are in effect, price supports are provided by legislative formula. From the late 1940s through

Consequences of Eliminating the Tobacco Program

If the current tobacco program were abolished and no government provisions were adopted to replace it, the following consequences could be expected:

1) Total production would likely fluctuate from year to year but might increase moderately over the long run. Current producers who have been willing to pay substantial quota rents have, in effect, signaled a willingness to expand output. Also, farmers who previously were not allowed to produce because they did not own land with a quota would have freedom to try to produce tobacco.
2) Leaf prices might generally drop by an amount equal to the average lease cost per pound now paid for quota. In addition, prices would likely be very unstable because of variations in production and the lack of assurance of minimum prices.
3) The resale value of many farms now having quotas attached to the land would drop drastically. By rendering the quota worthless, the equity position of current allotment holders would be impaired unless there were some program to compensate for the loss of quota value.
4) Income would be reduced for persons who have typically received rental income from tobacco quotas.
5) Some geographical shift in production to more efficient areas would occur.
6) The reduction in the number of farms would be accelerated. The smaller number of farmers who continue tobacco production might expand and mechanize their individual operations, since they would be no longer constrained by quotas. One factor which might slightly limit the degree of enlargement and consolidation of tobacco farms would be the increase in risk perceived from loss of the program. Other farmers might shift from tobacco to less labor-intensive enterprises by attempting to consolidate farms into larger acreages in order to earn a comparable income.
7) With no program, the government would have no obligation to advance loan funds or to absorb losses on price support operations.
8) The volume of U.S. exports could increase modestly with lower prices.
9) Reduced tobacco prices at the farm level might result in a small decrease in consumer price for tobacco products. But the farm value of leaf is only eight percent of the average retail cost of a pack of cigarettes. A one-third reduction in farm price of raw tobacco would be required to reduce cigarette costs by one cent per pack. The level of cigarette taxes is a greater determinant of consumer costs than farm-level tobacco prices.
10) Dropping government production controls and price supports would not within itself induce less smoking even though it is the smoking-and-health controversy that has prompted much of the discussion about less government involvement in the farm program for tobacco.□

1959, tobacco was supported at 90 percent of parity.* Since 1960, the support price has been adjusted annually from the 1959 level according to the moving average of the Parity Index in the three preceding years. The Parity Index is a national indicator of prices paid by all farmers for production items, family living, interest, wage rates, and taxes; i.e., it is essentially an index of inflation rates in overall farm costs, not an index of the costs of producing tobacco. Under this formula, the 1980 average support price for flue-cured tobacco was 141.5 cents per pound, compared to 55.5 cents in 1960, while burley tobacco price supports averaged 145.9 cents in 1980, compared to 57.2 cents in 1960.

The USDA determines the grades eligible for price support and loan rates for each grade. This administrative flexibility allows larger increases

* Parity price generally means equivalent purchasing power for a unit of a product as in a selected base period, which might be maintained by government support of agricultural commodity prices.

Landmarks in the Tobacco Program

compiled by Charles Pugh

1933 – **Agricultural Adjustment Act (AAA).** Established the principal of parity prices for tobacco and the farmer committee system.

1936 – **AAA of 1933 ruled unconstitutional** by U.S. Supreme Court on January 6, 1936.

1938 – **Agricultural Adjustment Act (AAA).** Established tobacco marketing quotas and provided penalties for excess production. The program provided for: 1) advance announcement of national marketing quota by the Secretary of Agriculture; 2) farmer referendum requiring two-thirds vote to approve quotas; 3) apportionment of poundage quotas to states and individual farms; and 4) authorization of parity payments, insofar as funds would permit, for the difference between parity price and market price. This Act, as amended, is still in effect today.

1939 – **Farmers Reject Quotas.** In 1938, quotas had not been determined by planting time, which caused excess marketings and some disillusionment with the new system. Farmers then voted in the referendum to reject 1939 quotas, and production increased 50 percent over 1938.

1939 – **Amendments to AAA of 1938.** Converted national and state quotas from poundage to individual acreage allotments and changed base period for flue-cured parity price from 1919-29 to 1934-39. Following these amendments, growers voted through referendum to restore the control program on the 1940 crop. Farmers have never rejected quotas since.

Early 1940s – **Administrative actions** affecting tobacco included:

1) Lend-lease program, which helped finance exports to friendly nations, accounted for 46 percent of flue-cured exports from 1941 to 1945.
2) Congressional resolutions permitted quotas to be raised; acreage allotments were boosted 25 percent in 1944 and 10 percent in 1946.
3) Price-ceilings were in effect for flue-cured tobacco under the Emergency Price Control Act of 1942.

1946 – **Flue-Cured Tobacco Cooperative Stabilization Corporation.** Organized to receive tobacco from farmers when prices were not above support level. Non-recourse loans from the Commodity Credit Corporation provided to finance its acquisitions.

1948 – **Agricultural Act of 1948.** Modernized parity to reflect trends in relative prices of all farm commodities during the preceding 10 years.

1949 – **Agricultural Act of 1949.** Flue-cured price supports were made mandatory at 90 percent of parity, when marketing quotas are in effect.

1954 – **P.L. 480.** The Agricultural Trade Development and Assistance Act provided for export sales for foreign currencies, long-term credit sales, and barter of surplus commodities such as tobacco.

1960 – **Change in Method of Price Supports.** Congress froze price supports at the 1959 level (55.5 cents per pound for

in price support for the grades in which demand is rising. But, as required by law, the weighted average of all support rates must equal the overall average support for each year's crop.

Commodity Credit Corporation Non-Recourse Loans. On the auction market, manufacturers and dealers buy tobacco at the highest bid, provided the bid is at least one cent per pound above the government support rate for the given grade. Stabilization cooperatives – one for flue-cured and two for burley – automatically buy the tobacco not sold at auction at the support rate, using funds advanced by the Commodity Credit Corporation (CCC), a USDA lending agency. These monies provide the means for implementing the price-support system. The cooperatives, which have acquired from 2 to 21 percent of a given year's crop during the past decade, process, store, and then resell the leaf. The proceeds from a given year's crop are first used to repay principal and interest to the CCC. If net losses occur from a year's crop, the government bears the loss –

flue-cured, 57.2 cents per pound for burley) and established a formula for future levels based on the moving average of the Parity Index in the three preceding years. This Parity Index incorporates inflation rates in overall farm costs (i.e , not just cost of raising tobacco); consequently, when farm-cost inflation rates are high, the support price rises accordingly. This formula, which replaced the mandatory 90 percent of parity provision passed in 1949, is still in effect today.

1961 to 62 – **Lease-and-Transfer Program.** P.L. 87-200 permitted existing allotment holders (only) to lease allotments within the same county for production on their own farm (i.e., rather than on the farm with the allotment, which had been necessary). The initial legislation permitted annual lease-and-transfer; later amendments allowed leases up to five years.

1964 – **Smoking and Health.** Report released by Surgeon General's Advisory Committee, similar to a British report in regard to possible health problems related to tobacco.

1965 – **Acreage-Poundage Program** for flue-cured. Replaced individual farm acreage allotments with acreage and poundage quotas for each farm. Allowed individual growers to sell up to 110 percent of their effective quota in any given year or to accumulate up to 100 percent of excess quota.

1968 – **Loose-Leaf Marketing Extended to All Belts.** "Tying" provision replaced by "loose-leaf" sales. (Loose-leaf had been historical method of marketing in Georgia-Florida belt.)

1971 – **Restrictions on Cigarette Advertising.** Radio and television advertising were banned in January, 1971. Other Congressional actions included cigarette labeling with Surgeon General's warning.

1971 – **Burley** program switched from acreage allotments to poundage quotas.

1974 – **Market Designation Plan.** By administrative ruling, farmers were required to designate in advance a sales warehouse within 100 miles of their county seat as a condition for price supports.

1977 – **Changes in Grade Standards.** Tightened waste tolerance levels and introduced "sand or dirt" factor into lower stalk grades.

1977 to 78 – **Federal anti-smoking campaign.** Secretary of Health, Education, and Welfare proposed a number of federal anti-smoking efforts.

1978 – **Four-Leaf Program.** In an effort to reduce inventories of lower-grade leaf in Stabilization Cooperative, this program allowed additional planted acreage to growers who would not harvest the four lower leaves on each stalk.

1979 – **Experimental sales of burley that was baled** rather than tied permitted for a portion of the crop.

1980 – **Price supports dropped** (administratively) on eight low-quality, downstalk grades of flue-cured.

1980 – Growers petition for **reclassification of imported leaf.** U.S. Tariff Commission allows mechanically threshed leaf to be classified in the "scrap" category. The growers petitioned for the practice to be changed, but the Tariff Commission made only a modest adjustment. Thus import duty levels remained about the same.

1981 – System for determining interest rate on **Commodity Credit Corporation loans** to Stabilization Cooperative altered. Instead of a single, specified rate, CCC will now review the rate twice a year and adjust it to prevailing market rates. □

Preparing the harvested leaf for curing.

hence, the loans are called "non-recourse." If net gains occur, they are distributed to the farmers. Cumulative losses of principal since the 1930s have amounted to only one percent of the total volume of tobacco loans. Until 1980, CCC loans were made at specified interest rates, which at times have been below the government cost of borrowing. This has caused critics of the program to label such loans a government subsidy. In early 1981, the Reagan administration changed the system of using a single specified loan rate. Interest rates for CCC loans will now be reviewed twice a year and adjusted to prevailing market rates.

Other Features. The lease-and-transfer program permits one allotment holder to lease quota from others in the same county for production on his own farm. The lease is privately negotiated between the two parties and documented through the USDA. Because lease-and-transfer is restricted to the boundaries of a single county, rents vary from county to county.

In the early 1970s, marketings across tobacco belts flooded some auction areas. Hence, in 1974, the USDA adopted a market designation plan to regulate the flow of flue-cured tobacco to market. Farmers must now designate their choice of sales warehouse within 100 miles of their county seat in order to be eligible for price supports.

In another example of an administrative response to a marketing problem, in 1978 the USDA created the "four-leaf" or "down-stalk" program for flue-cured. Stabilization had built up a large inventory of the down-stalk leaves, the lowest grades under the support program. The "four-leaf" program permits allotment holders to plant additional acreage on which to produce their assigned poundage, if they do not market the four lower leaves.

The USDA assists in a variety of research and education programs related to tobacco. County extension agents, who implement many local education programs, are partially supported by federal funds, along with extension specialists and some researchers at land grant universities. Tobacco-belt states such as North Carolina also work closely with the USDA on research projects to develop new information on tobacco.

Alternatives to the Current Program

If the current tobacco program were to be changed, the most extreme move would be to abolish it. This approach would essentially establish an open-market policy, where prices would fluctuate to equilibrate supply and demand. With no federal program, the size of the crop might well increase since there would be no supply restrictions. Since the demand for tobacco is generally considered to be inelastic,* price levels for tobacco would then drop, causing overall farm income from tobacco to decline. Abolishing the tobacco program would also cause tobacco farms to decline in value because their capital value depends in part on their quota. Likewise, abolishment would cause a loss of rental income to people who had previously held quotas for leasing. (See box on page 5.) However, those who had previously leased *in* quota might produce without restriction and face no rental expenditure.

There are many intermediate positions between the present tobacco program and "no tobacco program." The discussion that follows focuses on conceivable options to particular provisions of the present program. Some alternatives mentioned are authorized under existing legislation; others would require new laws or substantial changes in administrative rules. Some alternatives may be practical only through private, cooperative action by the tobacco industry. Since much of the discussion about dropping or modifying the tobacco program questions government involvement, it may be helpful to recognize that government can fulfill a role in three different ways: (1) by sanctioning particular actions; (2) by funding specific program activities; and/or (3) by serving as the action agent. Therefore, the various options discussed below can be viewed both in terms of the particular feature

* Most studies indicate that the demand for tobacco is inelastic. Inelastic demand means that a given percentage increase in quantity results in a larger percentage drop in farm prices; e.g., if tobacco quantity increased by 10 percent, farm prices might drop as much as 20 percent.

of the program and in the type of government involvement.

Alternatives to National Marketing Quotas

The capability to control the total supply of tobacco, through the national marketing quota, is the most critical component of the present program. Because demand for tobacco is inelastic, prices are sensitive to even small changes in quantity available. While marketing quotas are currently set by governmental action, other authorities could be empowered to take this action. The two most promising possibilities are marketing orders/agreements or a marketing board. Without enforcement powers, however, recommendations on supply level by nongovernmental bodies would be futile.

Under the Agricultural Marketing Agreement Act of 1937, as amended, tobacco is eligible for marketing orders. USDA uses a marketing order as a regulatory vehicle with farm commodities. Steps required to put marketing orders into effect include: (1) an initiation of a request to USDA, typically by an industry group; (2) a written proposed marketing order; (3) a public hearing; (4) a determination of need by the U.S. Secretary of Agriculture; (5) a referendum carried by two-thirds majority of eligible producers voting; and (6) an appointment of an administrative committee by the Secretary.

But federal marketing orders are not commonly used to restrict supply or limit the entry of new producers. The most common provisions of marketing orders which are in effect – for cranberries and celery, for example – are the regulation of flow to market, quality standards, and self-help plans. If such features were applied to a tobacco marketing order, some indirect limitations on the quantity marketed might be achieved.

The marketing board alternative already operates in some countries. In Ontario Province, Canada, a tobacco marketing board is empowered to establish quotas, allocate quotas to producers, negotiate minimum prices for each grade, and operate cooperative warehouses for sale of the crop. New legislation would be required to authorize such a marketing board to function in the various U.S. tobacco-producing states.

Despite the Canadian experience, the ramifications of sanctioning a private U.S. marketing board are difficult to anticipate. Would this approach be more politically acceptable than direct administration of the tobacco program by government agencies? And, without the aid of government as a third party, could the different interests of the various sectors involved in the production and marketing of tobacco and tobacco products reach decisions satisfactory to all parties? It might be difficult, for example, to obtain agreement on how much to limit marketings in order to raise prices. Many of the same pro-and-con arguments surrounding the current program might also apply to a tobacco marketing board. However, the removal of a governmental obligation to underwrite the costs of the program might reduce the criticism that it is inconsistent to have a government farm program alongside government efforts to discourage cigarette consumption.

Alternatives to Historical Quotas

The method of assigning farm quotas determines those who receive the major program benefits. As with the aggregate quota determination, this function would either have to be performed or sanctioned by government. Assuming that the national marketing quota is continued, there are various means by which quota could be assigned to farms. Historical bases – assigning quotas to those farms having a history of production – have been most often used in commodity programs, but there are some breaks with this precedent. For example, the Agricultural Act of 1977 tied benefits from the feed grains, wheat, and cotton programs to current acreage planted, rather than to historic bases. Program benefits go to farmers actually producing the commodity, rather than to those who own farms with a history of past production.

Any change in the method of allocating quotas would reduce the value of farms now assigned quotas and hence redistribute tobacco income. Rental income for farms losing quotas would decline and the capital value of such farmland would be reduced. Special financing problems would also be created for those who have recently purchased land with quotas. If undue hardship were created by a new method of assigning quota or by the entry of new producers (who previously did not have a quota to grow), some system of compensation might be devised. Decreases in farm value and losses of rental income might be compensated from public funds or from purchases of production-rights by producers. Legislation would be required to permit the sale of quotas, but precedent for this alternative does exist in programs for peanuts and for fire-cured, dark air-cured, and sun-cured types of tobacco.

Alternative Price-Support Systems

The periodic debate about possible changes in the price-support system has recently intensified. The price-support formula now guarantees a price for U.S.-produced leaf substantially higher than that for foreign-produced leaf. Consequently, loan stocks have accumulated, especially flue-

cured, and the U.S. share of world trade has declined.

The price-support system could be altered by adjusting the price-support formula (its base or escalator provisions) or the distribution of price supports among grades. There are a large number of alternatives which could be considered. (See box on page 11 for a description of the major options.)

Alternatives for Financing Price Stabilization

If the Commodity Credit Corporation (CCC) funding of non-recourse loans for tobacco were eliminated, the stabilization cooperatives might obtain some funding by borrowing from private sources or by authorizing a marketing order or check-off plan to create a producer-reserve. A continued role for cooperatives is possible with adequate financing because of the storable nature of tobacco and the experience and cohesive structure already gained among tobacco cooperatives. But, without the privilege of borrowing government funds, there might be limitations imposed by the necessity to avoid losses and by the prospects that interest costs from private sources might be above the rate charged for CCC funds.

The probability of success by cooperatives in stabilizing market prices without non-recourse loans depends largely upon continued quota authority and the level at which the national marketing quota is established. For example, if attempts were made to maintain prices at current levels, but with no quotas, production would increase substantially, resulting in large surpluses to be acquired by the cooperative. Without non-recourse loans from the CCC, losses from such surpluses could bankrupt the cooperatives. If acting without quotas were required, cooperatives could do little more than stabilize prices near the long-term open market level. On the other hand, if quota authority is retained, downward adjustments in quota can be made as necessary to permit cooperatives to sell their stocks without loss.

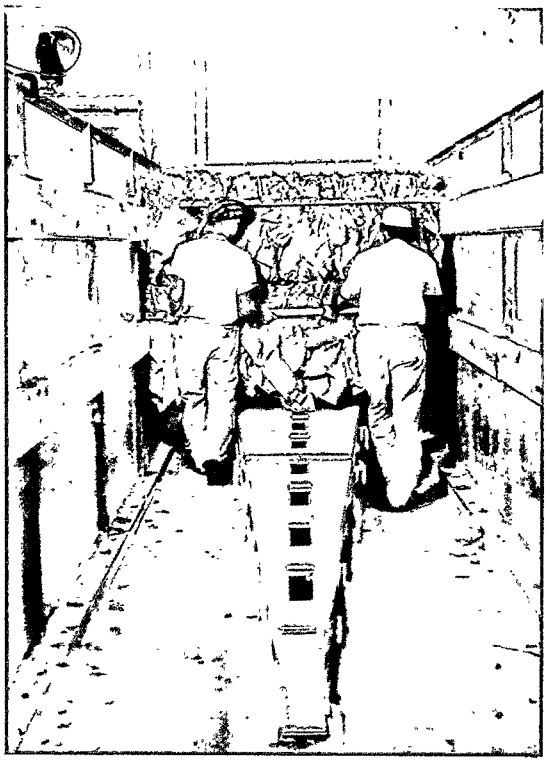
Alternatives to Other Program Features

The **lease-and-transfer** of quota among producers in the same county – the current procedure – is meaningful only when marketing quotas are in effect. If the quota system remains intact, then the principal debate is whether to permit lease-and-transfer across county lines. Such an amendment would allow quotas from low-rent counties to be leased into high-rent counties, and vice-versa, resulting in a redistribution of income among quota owners and possibly a leveling of lease rates throughout a state. Growers who have traditionally leased quota in low-rent areas object to the prospect of higher lease costs, but quota owners in the same area who lease rather than grow their allotment welcome the opportunity to lease-out to a wider market. Conversely, in high-rent counties, growers seeking larger quotas would favor cross-county lease-and-transfer, while those who typically lease-out in the same county foresee declining rental income.

Various **tobacco services** currently provided by the federal government could conceivably be funded by other sources. For example, in 1981 the Reagan administration proposed to change the funding mechanism for tobacco graders from a free to a fee system. If a price-stabilization program is maintained, the necessary costs for grading might be assumed by the industry. A government agency might continue to staff the grading service in order to provide the credibility of a third party. If a choice had to be made between losing federally-financed grading or other program features, such as supply control and price supports, the relative cost to be assumed by private sources for grading would be modest.

Market news information and analysis might be continued, possibly on a reduced scale, by the news media and marketing sectors or by the governments of the tobacco-producing states. In event of reduced federal support, research and education could be continued at some level by private indus-

Loading the curing barn.



Alternative Price-Support Systems

Each of the possible changes described below would likely require new or amended legislation.

The formula. The seven ways most often considered to modify the base or escalator provisions are:

1) **A freeze of the support level for some period:** This action would imply that price supports are currently too high, and would not allow changes in the index of farm costs (i.e., the Parity Index) to influence price support until after the freeze. Based on recent history, price supports would be held from ten cents to fifteen cents per pound below the level dictated by the current formula for each year of a freeze. If legislation were enacted to impose a freeze, some action would then be necessary regarding an adjustment formula to go into effect after the freeze ends.

2) **Replacing the current formula with a mandatory parity level:** Between the late 1940s and 1959, supports were mandatory at 90 percent of parity. But the present formula, even while sometimes criticized for making prices too high, has resulted in prices at less than 70 percent of parity. Hence arriving at an acceptable percentage would be difficult.

3) **Using a general economic indicator, such as the Consumer Price Index, as the escalator, rather than the Parity Index:** While long-term history shows that agricultural price indices sometimes lag behind changes in the general price level, most economic indicators tend to move at about the same rate.

4) **Moderating the pace of increases in support rates:** Partial adjustments would be made for inflation rather than full adjustments; e.g., less than a one-for-one adjustment for the percentage change in the Parity Index. Under this method, farmers would have to improve their cost efficiency to maintain net income from tobacco.

5) **Tying support rates to cost of tobacco production rather than to general farm costs:** The target price level adopted for agricultural commodities covered by the 1977 Agricultural Act relate to their specific costs, rather than a generalized index of farm cost rates. Use of this approach for tobacco would be subject to several problems such as determining the cost items to be measured. For example, if quota leases are included in an overall cost indicator, a ratchet effect on support rates could result. Higher rents could force price supports up, which induces further hikes in lease costs as tobacco prices rise. Using tobacco production costs for a base, then, might well adjust supports upward.

6) **Using a "two-price" plan rather than the single formula:** Two-price plans have been used to maintain prices in primary markets while permitting additional quantitites to be sold at lower prices in secondary markets. Milk classification plans are based on separating the market for fluid and manufacturing uses. The current peanut program also operates as a two-price plan. The usual notion of a two-price plan for tobacco would be to restrict sales domestically and to sell extra production on an export market at a lower price. How this would work is not clear since export companies appear to be the leaders in the purchase of higher-priced upstalk flue-cured tobacco.

7) **As an entirely different approach, administrative discretion could be broadened to allow the overall price supports to be within some legal range.** This approach, used now with dairy products, offers latitude for changes as circumstances warrant without requiring lengthy legislative changes.

Distribution of price supports among the grades. The USDA can now make some adjustments to support levels among grades. However, the overall support levels must average out to meet the legal formula. Therefore if supports are lowered on some grades, increases must be placed on others to meet the statutory average. □

try and state governments. Provisions of marketing orders and check-off plans are additional possible means for financing research and education in tobacco production and marketing.

Summary

The current tobacco program encompasses many features – some of greater economic consequence than others, and some more politically vulnerable than others. When there are opportunities to streamline the program – i.e., to fine-tune the mechanics involved – the most critical provisions, such as an aggregate marketing quota, need to be of primary concern. But if external pressures force a reduced involvement of government in the tobacco program, those provisions that can be performed by private or collective action within the tobacco industry might be transferred there – not those features which require, at a minimum, the sanction of government policy. □

Mechanical harvester at work.

The Tobacco Franchise for Whom?

by Charles K. Mann

The tobacco program is geared to benefit not the tobacco farmer but rather those who own farms on which tobacco happened to have been raised in 1933. These beneficiaries may be farmers, but they are also doctors and lawyers, churches and banks, millworkers and truck drivers, and in many cases, widows. This federal assistance program no doubt helps many people in relatively low-income brackets. The current program, however, benefits very little the tobacco farmer who does not own an allotment. If one is to have a tobacco "farm program," including all tobacco farmers in the program, even tobacco farm laborers, seems a reasonable policy objective.

Dr. Charles K. "Chip" Mann is associate director for Agricultural and Social Sciences at the Rockefeller Foundation. His analysis of the tobacco industry, expanded into Tobacco: The Ants and The Elephants *(Olympus Publishing Company, 1975), received the award for "Professional Excellence" from the American Agricultural Economics Association. Photos courtesy of N.C. State University.*

It is in society's broad interest to ensure that amendments to the tobacco program allow to stay on the farm those who wish to continue growing tobacco and equip to leave those who wish to find other employment. While blocking continued shifts in production patterns – from the Piedmont to the coastal plains, from small farms to large, consolidated units – may be impossible, at least political forces can prepare for them. For tobacco towns affected by these changes, the federal program should help breathe new life as it takes the old. No program narrowly focused on the heirs to the tobacco farms of the 1930s will do these things.

Specific programs of economic assistance to stranded communities and to displaced farmers and laborers can buffer the transitions that are ahead. Anyone who can demonstrate a history as a tobacco grower should be granted an allotment in relation to that history. There is some precedent in the rice program for vesting allotment rights with an individual and not in land. In Texas and California, the rice allotment belongs to the producer, not to the farm. He may take it where he likes, hence the term "hip-pocket allotment." It is, after all, the people who face the adjustment hardship, not the land.

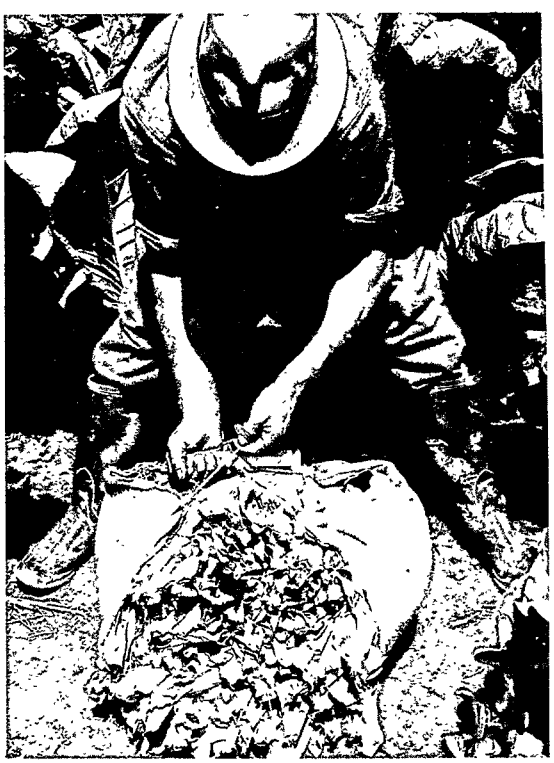
In order to facilitate the adjustment for allotment owners wishing to quit growing tobacco and to avoid simply "printing" new allotment, the government could, if necessary, purchase allotment from present owners before parceling it out to actual tobacco growers. But the precedent of such government compensation should be studied carefully as it could represent an important and potentially costly precedent; other allotment programs have been terminated without compensation. Even if those wishing to surrender allotment were compensated, however, the costs of providing allotment to tenant growers would probably be considerably cheaper than the costs to society of driving them from the farms they are operating, perhaps into the ranks of the unemployed. The needed funds could come from general revenues or by earmarking a modest share of cigarette tax revenues for the purpose.

Owning the asset of the allotment would help the tenant farmers who remain to acquire land on which to grow tobacco. Compared to allotment cost, land cost even today is cheap. Furthermore, owning allotment, a farmer could then lease added allotment from others in order to expand. The program could include special credits for helping with the purchase of farmland. Such an innovation in the tobacco program would make sure that all persons actually growing tobacco benefit by the program.

As to hired labor, the counties of likely severe labor displacement can be identified. The tobacco program should be expanded to encompass retraining and other worker-oriented assistance to former tobacco workers who are unemployed because of technology or shifts in production.

Under major program modifications, allotments would migrate out of some communities. In areas such as the Raleigh-Durham-Chapel Hill complex, there may be some individual hardships but leaf tobacco has ceased to provide the economic base. In these situations, special assistance programs may not be needed. However, some exporting counties have few alternative opportunities. For those, special rural development assistance should be provided explicitly under the tobacco program. This is particularly true of tobacco counties fringing the main production areas.

Understanding the tobacco economy means understanding the system of rights under which tobacco is grown and marketed. Rather than focusing exclusively on farm economics to discern major transitions in tobacco production, one must look toward the political process through which the system of rights was devised and continues to be modified. The franchise to grow and market tobacco retains high value. The rules of the allotment system determine how this value changes over time and how it is distributed among individuals and regions. In seeking constructive ways to reconcile efficiency of production with equity toward individuals and communities, one must focus on how changes in the rules of the system affect the distribution of program benefits.□



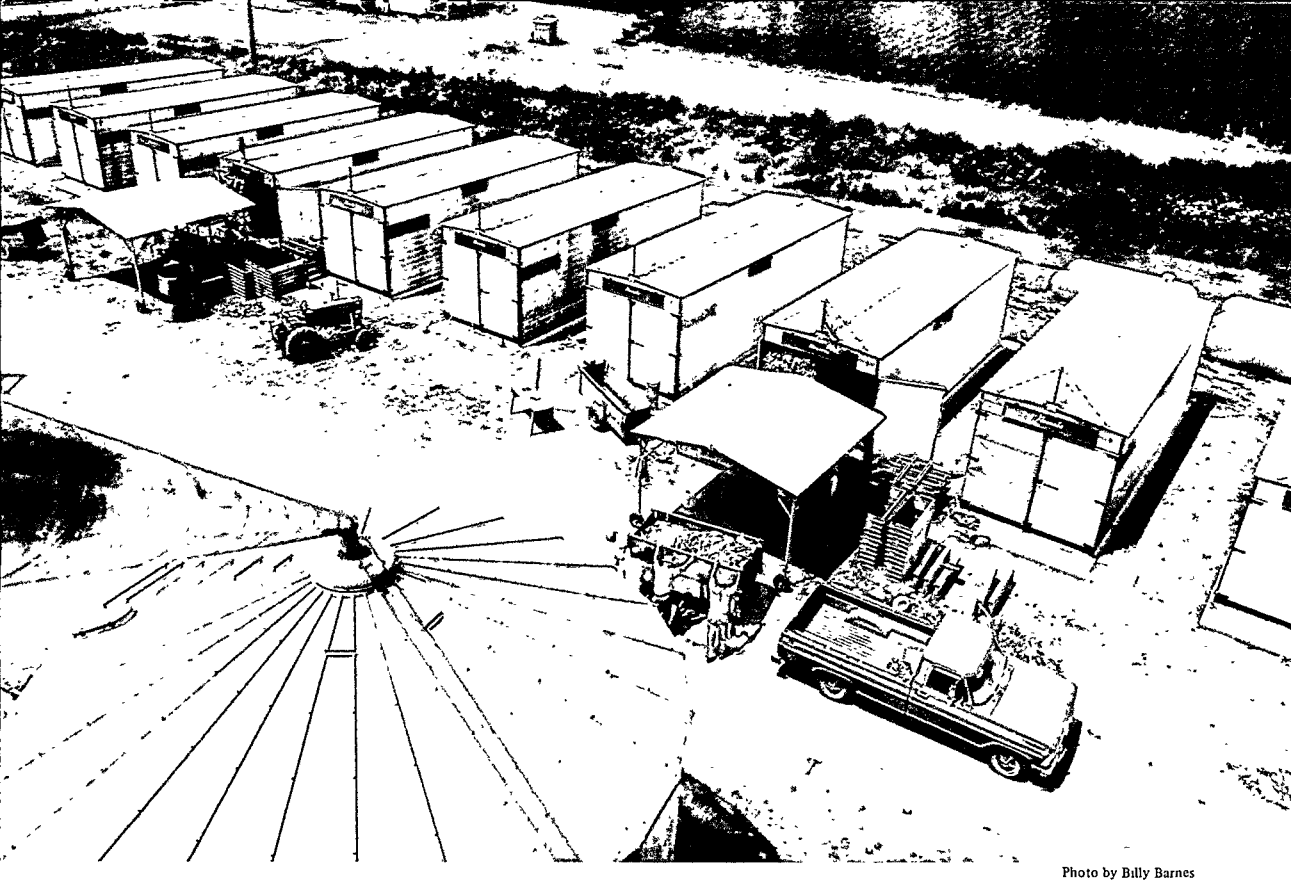


Photo by Billy Barnes

Changes in the Structure of the Flue-Cured Tobacco Farm —
A Compilation of Available Data Sources

by Robert Dalton

In the past decade, flue-cured tobacco farms have changed dramatically. They have become larger and more mechanized, requiring fewer and fewer farmers and relying on more and more leased quota.[1] These four factors – mechanization, farm unit size, the lease and transfer system, and labor displacement – are all closely interrelated and interdependent. As mech-

Bulk curing barns on a mechanized tobacco farm in eastern North Carolina.

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anization increases, farms get bigger, more tobacco is leased, and fewer people grow it. Each factor allows and encourages the next, operating in a circular system (see diagram on this page). This article summarizes the currently available data on the four variables shown in the figure; all of them play a vital role in determining the structure of the flue-cured tobacco farm.

The most wide-ranging and thorough data on this subject has been collected by the U.S. Department of Agriculture (USDA) through surveys of the flue-cured area in 1972 and 1979. The USDA published reports on this data in 1975, 1977, and 1981, documenting a rapid increase in the use of mechanical harvesters and bulk barn curing and a shift towards larger farm units with decreased overall labor requirements.[2] Other organizations and individuals have also collected this kind of data with similar results.

Size of Farm Management Unit

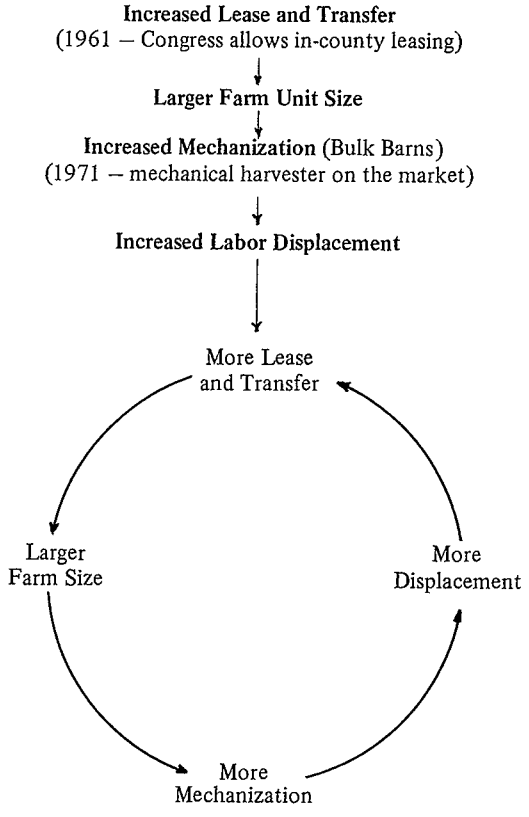
The size of the flue-cured tobacco management unit, according to the U.S. Census of Agriculture, increased from about five acres in 1964 to 8.7 acres in 1969. The USDA studies found the average at 9.5 acres in 1972 and 13.8 acres in 1979 (see table on page 16). In North Carolina the average number of acres harvested per flue-cured farm steadily increased from 5.2 in 1964 to 12.2 in 1978 (see table on page 16).

Mechanization

In both North Carolina and all flue-cured areas, the trend is towards greater mechanization of harvest and increased use of bulk barn curing. (These two aspects of tobacco harvesting go hand-in-hand). The USDA survey results show a dramatic jump in the use of both. In 1972 (one year after the mechanical harvester reached the open market), only one percent of the flue-cured crop was harvested mechanically and eight percent was cured in bulk barns. Just seven years later, from 19-33 percent of the crop was harvested mechanically and 61 percent was bulk cured. Projections for 1985 are 35 percent and 100 percent, respectively.

Two other sources, widely recognized among tobacco analysts, make yearly estimates of this data: Rupert Watkins of the North Carolina Agricultural Extension Service and the Tobacco Association of the United States (TAUS). Both Watkins and TAUS estimate that mechanization has proceeded faster than the USDA survey reports. The three sources agree on the degree to which bulk barns are being used for curing. Watkins derives his annual estimates by updating the number of mechanical harvesters used in North Carolina with sales figures from the manufacturers. He then multiplies that number by 50 acres per harvester. Watkins selects 50 acres because, as he puts it, it is a "happy medium" among the estimates other researchers use for the capacity per harvester. His methodology for bulk barn estimates is similar, except he multiplies the number of bulk barns by six acres per barn.[3] TAUS derives its percentage of the acreage mechanically harvested and bulk-cured by a survey of equipment manufacturers, extension agents, agricultural engineers, and tobacco specialists.[4]

LINEAR TRENDS HAVE EVOLVED INTO CIRCULAR SYSTEM



Lease and Transfer

In 1961, Congress voted to allow lease and transfer of tobacco quota within counties, and in 1967 it removed the limit of five acres that could be leased to any one farm. Lease and transfer is still only permitted within county lines. Both the North Carolina state office of the Agricultural Stabilization and Conservation Service and the USDA Economics, Statistics, and Cooperatives Service maintain careful records on quota levels and lease and transfer arrangements because they

are integral to the operation of the tobacco program.

Since 1966, lease and transfer has been growing in North Carolina, both in raw numbers (pounds of quota and acreage of allotment are assigned to each farm) and in percentage calculations. From 1966 to 1979, the amount of quota and acreage leased each increased 250 percent, from 80 to 280 million pounds and from 42,200 to 147,600 acres, respectively.[5] The portion of quota poundage that was leased increased from 12 percent in 1966 to 40 percent in 1980; the portion of allotment acreage that was leased rose from 12 percent to 42 percent over the same 15-year period. Similar trends took place throughout the flue-cured belts.

The portion of North Carolina's flue-cured farms leasing in or out grew from 32 percent in 1965 to 85 percent in 1979. The number leasing out increased much more rapidly than those leasing in, which indicates that farms still producing flue-cured tobacco are becoming larger in acreage and fewer in number. By 1979, 60 percent of the flue-cured farms in the state leased out but only 24 percent leased in.[6]

The trends belt-wide are similar. Verner Grise of the USDA, reporting on the 1979 survey results, indicated that a higher percentage of farmers are dependent on leased quota in order to have an economical farm management unit. "Only 16 percent of the farm operators owned the entire tobacco quota that they produced in 1979. The figure was 19 percent in 1972....About 27 percent rented in all their quota in 1979. The remaining 57 percent used some combination of owning, renting, and leasing....Ownership of the entire quota was much more prevalent among operators of the smallest tobacco acreages."[7]

Finally, Grise reported that an average farm in 1979 produced four quotas, compared to 3.2 quotas in 1972. In other words, three out of four quota holders did not grow their allotment in 1979. For many years allotment holders have rented their quota to a local farmer, but this practice has accelerated with the increase in leasing.

Labor Requirements

The amount of labor needed to produce an acre of tobacco has declined dramatically in the last 25 years, the period during which labor saving devices – from weed control chemicals to the mechanical harvester – have been introduced. Comparing a 1956 study by Dr. Charles Pugh at North Carolina State University with a 1977 report issued by the North Carolina Agricultural Extension Service shows the trend among the various stages of tobacco farming and for different farm sizes (see table on page 17).[8] The North Carolina Agricultural Extension service periodically publishes pamphlets that enable farmers to estimate costs and returns for growing tobacco in North Carolina.

The USDA report of the 1979 survey estimates that the number of flue-cured harvest workers (including family and exchange workers) declined

SIZE OF FLUE-CURED TOBACCO FARMS

REGION WIDE

	Pee Dee-Lumber River N.C. - S.C.	Coastal Plain N.C.	Piedmont N.C. - Va.	Georgia	All
1979	13.2	18.8	10.8	11.5	13.8
1972	10.9	11.2	7.7	8.7	9.5

Source: USDA, "Flue-cured Tobacco Farming: Structural Characteristics, Labor Use, and Mechanization," by Verner Grise. See Footnote 2.

NORTH CAROLINA

Year	Acres Produced (1000's)	Farm Producing (1000's)	Average/Farm
1964	399.3	76.6	5.2
1969	364.8	54.6	6.7
1974	359.5	37.8	9.5
1978	413.3	33.9	12.2

Source: *U.S. Census of Agriculture* for 1964, 1969, 1974, and 1978. The 1964 census provided this data directly, separating flue-cured from burley farms. For later years, the figures were derived by subtracting from the state totals the number of farms and acres in burley belt counties.

ESTIMATED LABOR INPUTS PER ACRE OF FLUE-CURED TOBACCO
(Man-hours)

Operation	1956	1977		
		Small*	Medium**	Large***
Plant Bed	11.0	3.74	2.32	5.87
Land Preparation	11.8	5.56	2.86	1.75
Pulling/Transplanting	35.0	22.00	16.10	16.20
Growing after Transplanting	46.2	13.13	2.87	3.38
Harvesting and Curing	145.0	125.00	88.00	59.06
Preparation for Market	140.0	30.00	15.60	15.60
Total Assumed Yield Per Acre	1600 lbs.		2100 lbs.	

*Small Farms – using hand-priming, typing machines, conventional barns and small tractor and tillage equipment, with 10 acres or less.

**Medium Farms – using larger tillage equipment, harvesting via racking on priming aid, and bulk barns, with around 25 acres.

***Large Farms -- Using large tillage equipment, 4-row transplanters, automatic harvester, and bulk barns, with 40 acres or more.

Source: See Footnote 8 in article.

from 325,000 in 1972 to 211,000 in 1979, an average drop of over 16,000 workers per year. "The decline occurred because of the adoption of labor-saving harvest technology," Grise reported. "Between 1972 and 1979 the greatest harvest labor reduction occurred in the Coastal Plain of North Carolina – the most concentrated production region. Harvest labor use declined by 46 percent in this region from 30.8 million to 16.7 million hours .... The number of harvest workers may have declined from 139,000 to 75,000.

"The smallest drop in harvest labor use between 1972 and 1979 was in the Piedmont of North Carolina and Virginia where labor use declined by 16 percent .... Because of the rougher topography, operator units have expanded less rapidly and mechanical harvesters have been adopted at a slower rate in this region."[9] □

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[1] Various systems for harvesting, preparing for curing, and curing flue-cured tobacco exist. The USDA reports cited in footnote 2 list ten different combinations, including several that could be called partially mechanized systems. This article focuses on mechanical harvesters and bulk barns because that combination has the most long range impact on the tobacco farm structure in terms of size of farm unit and labor requirements.

[2] The three USDA reports listed below are based on survey data in a four-region area which produces about three-quarters of the nation's flue-cured tobacco. All figures cited from these studies are based on surveys in this region, not on the entire flue-cured growing area. The studies are:

Vernon N. Grise *et al., Structural Characteristics of Flue-Cured Tobacco Farms and Prospects for Mechanization,* Economic Research Service, U.S. Department of Agriculture, Agricultural Economic Report No. 277, January 1975.

Frederic L. Hoff, *et al., Flue-Cured Tobacco Mechanization and Labor: Impacts of Alternative Production Levels,* Economic Research Service, U.S. Department of Agriculture, Agricultural Economic Report No. 368, April 1977.

Vernon N. Grise, "Flue-Cured Tobacco Farming: Structural Characteristics, Labor Use, and Mechanization," presented at the 29th Tobacco Workers Conference, Lexington, Ky., January 21, 1981, Economics and Statistics Service, USDA. The full report on the 1979 survey data will be published in 1981.

[3] Rupert Watkins, Extension Specialist, North Carolina Agricultural Extension Service, North Carolina State University at Raleigh, N.C. Telephone interviews, September 15 and 22, 1980.

[4] Letter from Hugh C. Kiger, executive vice-president, Tobacco Association of the United States, October 8, 1980.

[5] The figures for acreage allotment leased refer to acres leased in. The number of acres leased out tends to be larger than the number of acres leased in because of differing yields per acre. I chose to use the figures for leasing in to err on the side of caution.

[6] 1965-1979 *Annual Reports/North Carolina,* Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture.

[7] Grise, "Flue-Cured Tobacco Farming," *op. cit.* pp. 3-4.

[8] *Cost of Producing Farm Products in North Carolina,* Department of Agricultural Economics, North Carolina State College, A.E. Information Series No. 52, December 1956.

Planning for Profit-Field Crops. North Carolina Agricultural Extension Service, Circular 519 (Revised), November 1977.

[9] Grise, "Flue-Cured Tobacco Farming," *op. cit.* p.7.

A tobacco field converted to trellis tomatoes in western N.C.

Vegetable and Fruit Crops — Viable Alternatives for Tobacco Farmers

by Frank Adams

Hundreds of North Carolina's family farmers are quietly searching for profitable alternatives to tobacco, a crop many of them learned about at the knees of fathers or grandfathers, and a crop which is as much a way of life as a source of income. That way of life and of producing income has changed dramatically in recent decades. Tobacco operations have increased in size, requiring large capital investments. Bulk curing barns and mechanical harvesters are transforming tobacco production from a labor-intensive to a capital-intensive enterprise.

As a result, today fewer farmers than in years past can afford to grow tobacco. In 1972, according to the U.S. Department of Agriculture (USDA), there were about 40,500 flue-cured operations in the major growing regions of Virginia, North Carolina, South Carolina, and Georgia; by 1979 the number had fallen to 29,000 a 28 percent decline in seven years.*

The director of the N.C. Agricultural Extension Service, T.C. Blalock, sums it up: "Tobacco farmers are either going big and mechanized or they are leasing [their allotments]. . . . Thousands of farmers who used to be full time have now taken a job in industry." This is especially true for tobacco farmers who haven't the capital to invest in mechanized systems, for small allotment-holders who can make more money leasing than growing, and for sharecroppers who have had the allotments they used to grow leased away to large-scale operations.

Farmers with small tobacco operations seem to have three options: 1) they can continue to borrow money and invest in their tobacco operations, hoping to be one of the shrinking number of survivors; 2) they can take an off-farm job (and perhaps grow a little corn, hay, or other pasture crop part-time); or 3) they can try to change to crops other than tobacco and remain on the farm. This article addresses prospects and problems of the third option.

Tobacco farmers have grown accustomed to guaranteed market outlets and sales price levels, both of which are assured through the federal support system. Coping with new crop systems can be a difficult challenge for a tobacco farmer, especially at the marketing end. "Yes, there are

* Grise, Verner N., "Flue-Cured Tobacco Farming: Structural Characteristics, Labor Use, and Mechanization," paper presented at the 29th Tobacco Workers Conference, Lexington, Ky., January 21, 1981, Economics and Statistics Service, USDA.

Frank Adams is a writer and community educator who has worked extensively with farmer cooperatives. Donna Dyer, an economist, Mark Harland, a marketing specialist, and Hope Shand, a community educator, also contributed to this article. Photos courtesy of N.C. State University.

alternatives to tobacco," says J.E. Legate, dean of North Carolina State University's School of Agriculture. But he adds, "No other crop *for which we have a stable market* can provide the per-acre return that is realized from tobacco." (emphasis added)

For those who determine agricultural policy in tobacco-belt states, the quest for suitable substitutes to tobacco and a regular market for those substitutes looms large in economic and political importance. Finding ways to keep people on their farms and out of unemployment lines and cities lowers the monetary and social costs of displacement out of tobacco. Keeping people on farms relieves the pressure that industrial recruiters face to provide jobs in rural areas for farmers forced off their land. Most importantly, alternative crops and new market mechanisms can help farmers continue what they want to to do and know how to do: farm.

A Lack of Government Support

Displaced tobacco farmers cannot make a transition to soybeans, corn, wheat, or some other grain. All these crops require large acreage units for a profit. In 1979, soybeans netted about $72 per acre in North Carolina; wheat, $63; corn, $106; and even fresh market corn, $250 (see table on this page). Meanwhile, the state's flue-cured tobacco crop brought about $1200 profit per acre.

Various fruit and vegetable crops, however, are viable alternatives for tobacco farmers. Strawberries, for example, netted over $3000 an acre in North Carolina in 1979. Trellis tomatoes, peaches, and apples also topped the per acre return of flue-cured tobacco; blueberries, cucumbers, and sweet potatoes weren't far behind (see table). Moreover, all these crops can be grown on small acreage units, similar to the old-style, three-to-five acre tobacco farm.

To switch to these crops, tobacco farmers need a great deal of technical advice and support. They face large, sometimes insurmountable hurdles. Many of them have large investments in modern curing and harvesting equipment; some lack the practical skills needed for growing unfamiliar crops. And the biggest constraint is the lack of a guaranteed market.

If strawberries, trellis tomatoes, apples, and other high-income yielding crops had guaranteed markets and sales prices, many now reluctant farmers might see their way clear to diversifying their operations into vegetables or fruits. In a state like North Carolina, the agricultural support systems are geared to those crops – like tobacco – where federal programs are already functioning, rather than to crops for which backup systems have yet to be developed. Research in Washington and in field stations, farm bulletins and surveys, and extension projects all have the funding and momentum of the tobacco program behind them. Alternative crops do not receive the same research or attention from the government support systems, such as the land-grant universities and the farmer loan agencies, that tobacco gets.

The N.C. Agricultural Extension Service, for example, has assisted in seeking alternative crops for tobacco farmers in only isolated instances. In the western counties, the Extension Service did assist in expanding the trellis tomato industry, which has helped some burley farmers. But it has not mounted any type of intensive effort to help tobacco farmers throughout the state adapt their

RANKING OF CROPS ACCORDING TO NET RETURN PER ACRE IN NORTH CAROLINA (1980)

1. tomatoes (mountains; trellis)	$3454.46
2. strawberries (fresh market)	3008.00
3. apples	1974.65
4. peaches (fresh market)	1960.00
5. strawberries (pick your own)	1278.00
6. tobacco (flue-cured)	1198.02
7. blueberries (fresh market)	1142.37
8. cucumbers (fresh market)	799.19
9. watermelons	775.15
10. sweet potatoes	653.05
11. okra (fresh market)	466.96
12. cabbage	437.96
13. summer squash (fresh market)	339.04
14. snap beans (fresh market)	330.24
15. pole beans	301.16
16. white potatoes	260.84
17. sweet corn (fresh market)	249.89
18. peanuts	223.18
19. alfalfa hay	171.00
20. tomatoes (processing; hand harvested)	157.42
21. snap beans (processing)	144.39
22. cotton	130.44
23. green pepper (fresh market)	125.00
24. red clover/orchard grass hay	117.68
25. okra (processing)	116.74
26. cucumbers (processing)	107.41
27. corn (no till)	106.34
28. corn	101.71
29. tall fescue hay	101.22
30. wheat and soybeans (double cropped)	98.30
31. grapes	97.52
32. soybeans	72.45
33. wheat	62.77
34. milo	39.61
35. barley	30.92
36. oats	0.51
37. coastal bermuda hay	-98.50

Source: *Crop budgets prepared by the Agricultural Extension Service at North Carolina State University, updated with current market data in January, 1980, by Mark Epp, coordinator of training and research, Frank Porter Graham Center, Wadesboro, N.C.*

T.C. Blalock, director of the North Carolina Agricultural Extension Service, at his desk in Raleigh, N.C.

operations to other crops. Its research efforts have also been limited. In 1978, when the Governor's office expressed concern regarding possible modification or loss of the tobacco program, the state extension office at North Carolina State University made a study of alternative gross farm incomes that might be generated in case of some catastrophic drop in tobacco income. The study put far greater hopes in beef cattle, poultry, swine, dairying, and horticulture than in a minor category called agronomy (new crops).* In addition, any initiatives toward finding new ways to adapt tobacco farms to fruit and vegetable operations do not appear likely. "We have not done any overall study since that report," says Extension Director Blalock.

The experiences of Phil Wood, a tobacco farmer in Fuquay-Varina, N.C., illustrate another limitation of government support for alternatives to tobacco. In 1980, Wood grew 55 acres of flue-cured tobacco, but even a farm that big wasn't enough. "Expenses were so high that I had to start borrowing for the winter," Wood says. "I just broke even, didn't make a thing." For the 1981 season, Wood wanted to grow 20 acres of peppers and 40 acres of cotton, but he ran into another kind of money problem. Farmers borrow large sums each year to get their crop in the ground, and Wood went to the usual lending source, Production Credit Association. But Production Credit, which was willing to lend Wood money to grow tobacco, would not take a risk on peppers or cotton. "I'm in a trap right now," Wood said in January, 1981, still deciding what to plant in the spring. "Production Credit won't loan me money so I can diversify and Farmers Home [Association] won't loan me any money unless Production Credit refuses [to give] me [money]." Since Production Credit is willing to loan Wood money for tobacco, he's stuck. "I can't diversify now because funds aren't available to me."

How to Survive the Constraints to Switching

In Wadesboro, N.C., a private, nonprofit research farm is working to provide models for small farmers to continue living and working on the land. A project of the 45-year-old National Sharecroppers Fund, the Frank Porter Graham Center has been training small farmers and conducting crop and livestock experimentation for almost 10 years. The bottom line for any commodity tested at the Graham Center is profits; the central concern is what the net income yield per acre will be. The farm's staff also examine closely possible constraints farmers face in growing particular crops, especially on three-to-five acre operations – the size of a small tobacco farm. The Graham Center has found that most of the crops listed on page 19 can be grown profitably

* Letter from T.C. Blalock, director of the Agricultural Extension Service, to W.D. Lewis, agricultural policy advisor to North Carolina Governor James Hunt, July 7, 1978, which said, in part:

"In view of the apprehension from the Governor's office regarding the possible modification or loss of the tobacco support program, I have asked our commodity-oriented departments to estimate the additional annual gross cash farm income that might be generated through accelerated efforts on the part of producers and processors working with the Agricultural Extension Service if a substantial drop in tobacco income were to occur. A summary of these estimates is attached....

Commodity category	Present estimated annual gross farm income	Future estimated annual gross farm income
Christmas trees	$ 5,400,000	$ 21,000,000
Beef cattle	94,600,000	253,900,000
Horses	110,000,000	300,000,000
Dairying	171,130,000	214,378,932
Horticulture	246,200,000	432,900,000
Poultry	606,205,000	893,471,743
Swine	314,000,000	450,000,000
Agronomy (new crops)	671,000	2,240,000

These estimates are not considered additive because they were developed independently and do not reflect competition for the same resources of production. However, if all this expansion could occur under the most favorable circumstances, even so we could not replace all the income normally resulting from tobacco production. This optimistic pattern of increased production of alternatives to tobacco would require about as much land as is required for tobacco. Depending upon the degree of mechanization adopted, the alternatives to tobacco could require almost as much labor as for tobacco. Some of these enterprises would require substantial amounts of investment capital."

on a small farm operation. Moreover, few carry with them technical or investment problems that cannot be overcome. Some possible constraints and ways to overcome them are:

• **Irrigation** – Vegetables and berry crops require more water than tobacco, and irrigation would be necessary during especially dry years. Graham Center staff member Mark Epp says the cost of an irrigation system is not insurmountable to small farmers. An irrigation system for a 10-to-15 acre vegetable operation can be installed for $10,000-$15,000 by using a pond dug on the farm, says Epp. And the Farmers Home Administration will loan money for irrigation systems. "Though it's expensive, it's no more expensive than a lot of machinery and energy used in grains and tobacco," Epp explains.

• **Start-up time** – Farmers interested in orchards as a livelihood are often deterred by the long wait for fruit trees to mature. Peach trees require a three-year start-up time; apple trees need five years before producing the first crop. The Graham Center suggests planting row-crops, such as sweet potatoes, sorghum cane, peanuts, or watermelons between the rows of young trees while they are maturing, thus alleviating an income dormancy during this period.

• **Machinery and labor** – Many tobacco farmers have sizable investments in curing barns and other equipment associated exclusively with tobacco, and they naturally fear the loss of their investments if they switch to alternate crops. In addition, one initial reason for purchasing tobacco production technology was probably the farmer's diffculty in finding and affording seasonal labor. So, another obstacle to growing crops other than tobacco is the farmer's fear of a renewed, increased need for hand labor.

Farmers who own one-row planting and tilling equipment require little capital investment when starting alternative crop farming, aside from irrigation costs already mentioned. The tobacco transplanter can be used to set out sweet potatoes or tomato plants, and bulk barns might be used for sweet potato curing or peanut drying. Farmers might have to sell automatic tobacco harvesters since only one-row machinery transfers to vegetable crops, but many smaller tobacco farmers have not yet invested in that costly piece of machinery.

Labor used to produce flue-cured tobacco averaged about 172 hours per acre in 1979, with over two-thirds of that labor used to harvest and prepare the tobacco for market, according to the USDA. Most crops studied at the Graham Center to date require a similar amount of labor for production and harvest. If some alternate crops do require more hand labor than tobacco, the savings in capital costs and fuel bills may soften that particular blow.

Irrigation system fed from a pond on the same farm.

• **Energy** – Tobacco is an energy-intensive crop, particularly as the harvest and curing becomes more mechanized. Flue-cured tobacco accounts for over 60 percent of North Carolina's energy uses in agriculture. Approximately 316 gallons of fuel are needed on an average acre.* Nationally, tobacco grows on only 0.03 percent of the available cropland but consumes only 15 percent less energy than what is used to raise all the vegetables in the United States. Many farm chemicals are oil-based, and one USDA study found a higher percentage of tobacco acres sprayed with insecticides than any other major crop.** Alternative crops tested at the Graham Center pose no greater pest or disease threat than tobacco and historically have required less fuel and oil-based chemicals.

• **Soil and climate** – There is nothing unique about the soil which supports the successful growth of tobacco. It can be raised on a great variety of soils in all climates from southern Canada to tropical areas. Tobacco production was frozen in its precent location by the federal tobacco program enacted in 1933. Most crops tested at the Graham Center would grow well in all the major tobacco belts.

In sum, then, other than the cost of irrigation for berries and some vegetable crops, changing over to any of the alternatives as profitable as tobacco does not present multiple hurdles. None would require additional machinery or labor; dependency on fuel and pesticides would probably

* *1979 Tobacco Information,* North Carolina State University Extension Service, p. 62.

** *Agriculture and Energy,* edited by William Lockeretz, Academic Press, 1977, p. 704.

decrease for tobacco farmers who switch; and soil and climate conditions offer no obstacles. But alternative crops grown widely would require a dependable and accessible market, plus additional organizational means for distribution.

Marketing – the Biggest Deterrent

The key deterrent to tobacco farmers interested in growing alternative crops is the lack of a stable market and distribution system. Only tobacco has a guaranteed market. Warehouses are located in dozens of hamlets, and, due to the support price and quota system, tobacco prices do not fluctuate according to supply and demand. Prices for many other crops do fluctuate, rendering growers' incomes uncertain from year to year.

It is ironic that North Carolina, with its bountiful fields and many miles of as yet undeveloped land, imports more than three-fourths of the vegetables its residents consume. In the central Piedmont alone, there are more than two million consumers who, conceivably, could buy local produce if farmers chose to grow it and if it were made accessible. But because of established marketing and distribution systems, getting large quantities of locally grown vegetables into consumers' grocery bags is no easy enterprise.

If enough vegetable farmers pool their individual harvests into an adequate quantity, it is possible to make the links to established bulk buyers – jobbers, wholesalers, and processors – who sell in large population centers and through supermarket chains. One such cooperative effort underway may handily serve Piedmont vegetable growers someday, and, if successful, will serve as a much needed marketing model for farmers in other areas.

In the Piedmont, where small-size tobacco operations are steadily dwindling in number, a group of farmers has been working to establish the Piedmont Vegetable Marketing Cooperative, Inc. The Co-op has its roots among a small group of Chatham County farmers who quickly discovered that a key step toward obtaining start-up capital from traditional lending institutions is a USDA feasibility study. The USDA ascertains the need for a marketing co-op, ensures that a sufficient number of farmers wish to take part, and finds the probable buyers for the co-op's supply of produce. In 1978, the farmers wrote USDA requesting the feasibility study, which USDA does for free. Two USDA agricultural economists surveyed 131 farmers in six Piedmont counties to learn about their current crop production and their interest in a vegetable co-op warehouse in their area. During this time, the North Carolina Land Trustees, a nonprofit group based in Durham, was providing technical assistance to the Co-op and holding meetings in the six counties to generate interest in the idea.

The economists found that 66 percent of those surveyed farmed full time, raising tobacco, soybeans, hogs, beef, and vegetables. They planted a total of 815 acres in vegetables, an average of about six acres each. (See table on page 23 for a description of the types of vegetables grown and their yields.) Twenty-two farmers sold their vegetables on consignment, and four sold on contract. Fifteen relied on door-to-door sales. The economists multiplied the farmers' reported yields by the 1978 N.C. average seasonal price and determined their total gross revenue was $858,857.97 (see table). Nearly to a man, the 131 farmers told the economists that if a market were established, they would be willing to expand their vegetable production.

The feasibility study sought to determine the demand for home-grown produce, the prices farmers could expect, the location of the markets, and any requisite quality standards. In gathering data the USDA contacted packing sheds, wholesale shippers, processors, retailers, and a few consumer food cooperatives. Each operation was questioned about grading and packing preferences, minimum volume requirements, contractual arrangements, and pricing patterns. The USDA report suggested three marketing strategies for the Piedmont vegetable growers: 1) that the farmers form a cooperative based initially on sweet potatoes, cucumbers, and green peppers; 2) that the co-op find a warehouse where produce could be assembled, cleaned, graded, and packed on a large-scale basis; and 3) that the co-op hire a full-time manager.

With this blueprint in mind, the fledgling Piedmont Co-op set out to gather the membership and raise the equity necessary to lease warehouse space, to furnish it with loading docks and refrigerated storage, and to hire a manager. On July 15, 1980, farmers from six Piedmont counties voted to create a co-op for shipping green peas, cucumbers, summer squash, okra, and sweet potatoes to local markets and to Washington and Baltimore. In September, the Co-op formally organized and incorporated itself with about 50 members. Next came the critical step: generating the start-up capital.

To be a member, a farmer has to buy one share in the Co-op ($30). The feasibility study indicated that at least 650 acres of produce were needed as commitment from members before the Co-op's success could be assured. Lending institutions look closely at the portion of start-up capital invested by the Co-op members. The Co-op board decided that for the project to be on solid footing, the members would have to contribute 30 to 50 percent of the start-up capital needed. Depending upon inflation, grant applications, and other

USDA FEASIBILITY SURVEY RESULTS FOR GROWERS IN SIX PIEDMONT COUNTIES

Crop	Unit	Acres harvested	Yield per acre	Price per unit	Total yield	Total revenue
				Dollars		Dollars
Cabbage	Pounds	36.65	18,000	.08	659,700	52,776.00
Cucumbers	Bushels	155.40	188	3.07	29,215	89,690.64
Okra	Pounds	15.20	9,800	.20	148,960	29,792.00
Peppers	Bushels	57.50	338	6.09	19,435	118,359.15
Pole beans	Bushels	29.90	225	6.00	6,728	40,365.00
Snap beans	Pounds	37.15	3,000	.07	111,450	7,801.50
Summer squash	Bushels	23.50	225	7.00	5,288	37,012.50
Sweet corn	Crates	135.45	187	3.50	29,329	88,652.03
Sweet potatoes	Bushels	86.20	337	3.50	29,049	101,672.90
White potatoes	Pounds	25.30	15,000	.11	379,500	41,745.00
Tomatoes	Pounds	30.80	22,500	.15	693,000	103,950.00
Watermelons	Pounds	64.95	16,875	.04	1,096,031	43,841.25
Cantaloupes	Pounds	68.80	6,000	.25	412,800	103,200.00
Total a/		766.80				858,857.97

a/ The figure for total acres harvested does not take into account that growers allocated 48.2 acres to the production of crops such as grapes, peas, collards, etc. The total acreage of all vegetables harvested thus becomes 815 acres.

Source: Preliminary Report, U.S. Department of Agriculture Economics, Statistics, and Cooperative Service, Washington, D.C. 20250. "Vegetable Growers Cooperative, Piedmont Area of North Carolina," n.d.

factors, the board thinks each member might have to invest up to $300 per acre for each acre of vegetables he plans to sell through the warehouse. If this equity could be raised from members, the rest of the financing necessary – some $150,000 to $200,000 – could be secured more easily than if adequate member equity is lacking.

While farmers can sometimes get low interest loans from Production Credit or Farmers Home Administration for investing in a co-op, making such an investment commitment has been difficult for many farmers, especially after a poor 1980 crop. Consequently, the Co-op did not reach its goal of a 650-acre commitment from members in time for the 1981 season. "It's a chicken and egg problem," says Arnie Katz, a Land Trustees staff member who works with the Co-op. "There's no doubt several hundred farmers would join in a year once they saw it going." Katz has talked to many tobacco farmers who either want to diversify or leave tobacco altogether. An uncertain market remains a severe initial deterrent. The Piedmont Co-op's board of directors is continuing efforts to build interest – and equity – in their venture, and will coordinate a smaller, pilot operation during the 1981 marketing season.

Conclusion

These private endeavors to rearrange economic relations on a small scale provide policymakers with valuable practical examples of how new economic institutions can be forged for the benefit of family farmers. The Graham Center's work reaffirms the viability of small farms; the efforts of farmers to establish their own marketing mechanism show that the will to continue their traditional way of making a living is as strong as ever. The problems enterprising small farmers face – and their reluctance to put their money and efforts into new ventures before they see some strong assurance of success – should point the way toward redirected government efforts as well, both in the administration of state-level agriculture programs and at the land-grant university centers such as North Carolina State University. Meaningful policies could result from public discussion about why family farmers are searching for alternatives to tobacco. Solid research and technical assistance is needed on ways to improve marketing and distribution systems for small farmers' potentially valuable contribution: food crops.

Tobacco farmers generally have had an edge over other kinds of farmers for many years because of their guaranteed market and support program. But small operators lack the capital to keep up with intensive mechanization trends. Tobacco farmers have to find new ways to survive on the land or join the hundreds of thousands who must search for non-farm employment. Tobacco farmers who wish to grow alternative crops, such as vegetables, have some advantages from the start: much of their equipment will transfer to their revamped operations; in most cases, they will save on energy costs; many of the alternative crops could provide them even better profits than does tobacco; and they can stay on the farm. In marketing their produce, though, they will need assistance, and that is the challenge that private and public interests must meet, cooperatively. □

Photo courtesy of N.C State University

Industrial Growth: An Alternative for North Carolina's Tobacco Farmers

by J. Barlow Herget

The middle-aged man squirmed uncomfortably in his seat, explaining why he wanted a job in one of the new electronic industries that had located in the Research Triangle area during the past three years. He had the hands of a farmer and looked awkward in his three-piece, knit suit. He had applied for a computer operator's job, a skill he had acquired as a state employee several years back. He was explaining a five-year gap in his work record between 1972-77.

"I decided to go back to farming," he says. "I farmed tobacco and some other crops. I didn't have an allotment so I rented about 15 acres. I quit because I got tired of working for nothing."

This time it is the wife of a Johnston County farmer whose husband tills 55 acres of tobacco, 13 of which he owns. Her name is Peggy Williams, 37, neat and soft-spoken and mother of three children. She now has a job as a traffic clerk with Data General Corporation, a manufacturer of small computers that located research and development and manufacturing operations in North Carolina during the 1970s.

"We had a bad year in 1979, and I had to go to work," says Mrs. Williams matter-of-factly. "I have worked part-time for the state at Motor Vehicles during registration time and for Hudson Belk's some. I have been farming tobacco since I was a girl. I've seen it go from mule and plough to automatic harvester and bulk barns. This is my first full-time job and it has really helped out, especially the medical and dental insurance. It's hard to tell what our children will do. My daughter wants to farm, but she's hoping to get on over here [at Data General]." Mrs. Williams pauses and then shakes her head. "Farming is getting so there's so much expense to it."

J. Barlow Herget, formerly an editorial writer for the Raleigh News and Observer, *served as special assistant to N.C. Secretary of Commerce D.M. (Lauch) Faircloth from 1977-79. He now works for Data General Corporation in Clayton, N.C.*

It doesn't take a Ph.D. in history to know that the stories of the ex-farmer and Mrs. Williams have been repeated time and again across North Carolina and other southern states. Both are part of the exodus from farm to factory that has taken place in every agricultural region in the country as one crop after another has become mechanized. And now, the flight from farm to factory has become particularly apparent among tobacco growers.

In North Carolina, the small farm gave way to "agri-business" during the 1970s, and even tobacco, the last major cash crop still grown on small farms, was affected by the shift. Recent figures for the declining tobacco farmer population illustrate a trend that has been developing for a decade. In 1978, only 52,000 people were growing tobacco in North Carolina out of a total labor force of over 2.6 million. In 1979, there were only 46,000, a 12 percent decline in one year. Where have these people gone? Where can they find new jobs and incomes?

Scientific research may pinpoint the answer to the first question. A careful observer would probably find that the stories of Mrs. Williams and the ex-farmer reflect what has happened to most of those tobacco farmers who are younger and continue to work. One study of two North Carolina counties,* for instance, showed that of those allotment holders who recently had quit tobacco farming, 53 percent retired and 17 percent either turned to other types of farming or remained housewives. The remaining 30 percent, mostly those still of working age, found jobs in local industries. Industrial expansion, then, offers an essential alternative for those who now either cannot or will not continue to farm tobacco.

Attracting new industry to North Carolina was a major part of Governor Jim Hunt's first administration (1977-81) and of his successful 1980 campaign for re-election. The present Chief Executive's interest in industrialization has deep roots in North Carolina politics, going back at least as far as the policies of Governor Luther Hodges (1954-61). Almost every governor since Hodges worked hard at attracting new industry and his salesmanship paid off. Perhaps the capstone of his effort was the establishment of the Research Triangle Park between Raleigh, Durham, and Chapel Hill as a center for high technology and research jobs. The Park has become a model for economic developers across the country and has given the Triangle area the distinction of having the highest number of Ph.D.s per capita in the nation.

Like Hodges, Hunt has been guided by two principal goals: first, to diversify the state's industrial base, long dominated by textiles, apparel, and furniture; and, secondly, to attract new industries that would raise the state's low manufacturing wage. In addition to these traditional development objectives, Hunt has emphasized a third dimension: "balanced growth," a geographic distribution plan for new industrial expansion which envisions the presentation of the state's dispersed population centers, and the avoidance of the urban blight that has scarred some other fast growth regions. Thus, "balanced growth" has come to signify not only the familiar effort to balance wages and industry sectors, but also to maintain a geographic balance in industrialization.

While these may sound like apple pie and motherhood policies, they have proved politically volatile on more than one occasion. For example, Hunt's call to diversify the industrial base offended some supporters in the textile and furniture businesses. The description of certain sectors of the state as "low-wage" areas did not sit well with others. And some spokesmen for the state's politically powerful larger cities saw an anti-urban bias in the call for geographic balance in industrial growth.

Yet in 1977, when Gov. Hunt took office, the logic of these policies was persuasive. The "big three" – textiles, apparel, and furniture, all of which are low-paying – still accounted for almost 56 percent of the state's factory jobs. Historically, the concentration has caused the state's average industrial wage to remain at 49th or 50th (alternating with Mississippi) nationwide.* Moreover, these industries are all tied to the consumer goods market and thus often vulnerable to boom and bust cycles. The state economy had a habit of catching a cold when the national economy sneezed. Industial diversification was part of the cure for such violent economic swings, particularly when a new industry involved research and technology. At the same time, diversification was expected to boost the state's low average industrial wage and provide alternatives for workers turning from the farm to the factory for a livelihood.

But just what kinds of jobs are becoming available to tobacco farmers? How successful has industrial diversification been? What kinds of new jobs has this growth provided? Where have these jobs

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* "Can Tobacco Farmers Adjust to Mechanization? A Look at Allotment Holders in Two North Carolina Counties" by Dr. Gigi Berardi, *The Tobacco Industry in Transition: Policies for the 1980s* (Lexington Books, forthcoming 1981).

* Standing alone, this statistic might be misleading. It does not, for example, take into account the differences in the cost of living between states. But it nevertheless has remained a burr under the blanket of successive administrations in Raleigh.

located, and why? Is the credit due to political leadership, labor supply, good roads, adequate water, sound business habits, low unionization rates, low construction costs, or some other factors?* Has there, indeed, been balanced growth in North Carolina? And what alternative does this growth offer to the state's tobacco economy?

North Carolina, like most "sunbelt" states, benefited during the 1970s from the general growth of the South. Population figures stabilized and in North Carolina, rose dramatically. By 1980, according to preliminary U.S. Census reports, the state surpassed Massachusetts as the 10th largest in the union with over 5.8 million people. And this growth was not in the farm sectors. "What used to be called Tobacco Road in some quarters is now hailed as the dawning Sunbelt," noted N.C. Secretary of Commerce D.M. (Lauch) Faircloth in an essay printed in *The New York Times* in January, 1978.

In July, 1980, the N.C. Department of Commerce (DOC) reported that during the 1970s more than $11 billion in investment capital for new and expanding industry was committed in the state. (DOC Research Report, Vol. 3, No. 2). The number of jobs projected to flow from this investment totaled 246,770. While many of these jobs remained in the labor intensive "big three" industries, the trend in capital investment appeared to be outside these traditional sectors. In 1970, companies in the state which expanded their local operations accounted for about 65 percent of the capital announced for North Carolina industrial projects; most of this expansion was in the traditional sectors. In 1977, by contrast, over 50 percent of the announced capital investment for industrial projects was committed to new facilities (i.e., not expansion of existing physical plants), most of which came from newcomer companies outside the "big three" sectors. In 1978, such new growth rose to almost 75 percent of the announced capital investment; in 1979, it was 55 percent. (DOC 1979 Annual Report for Economic Development.)

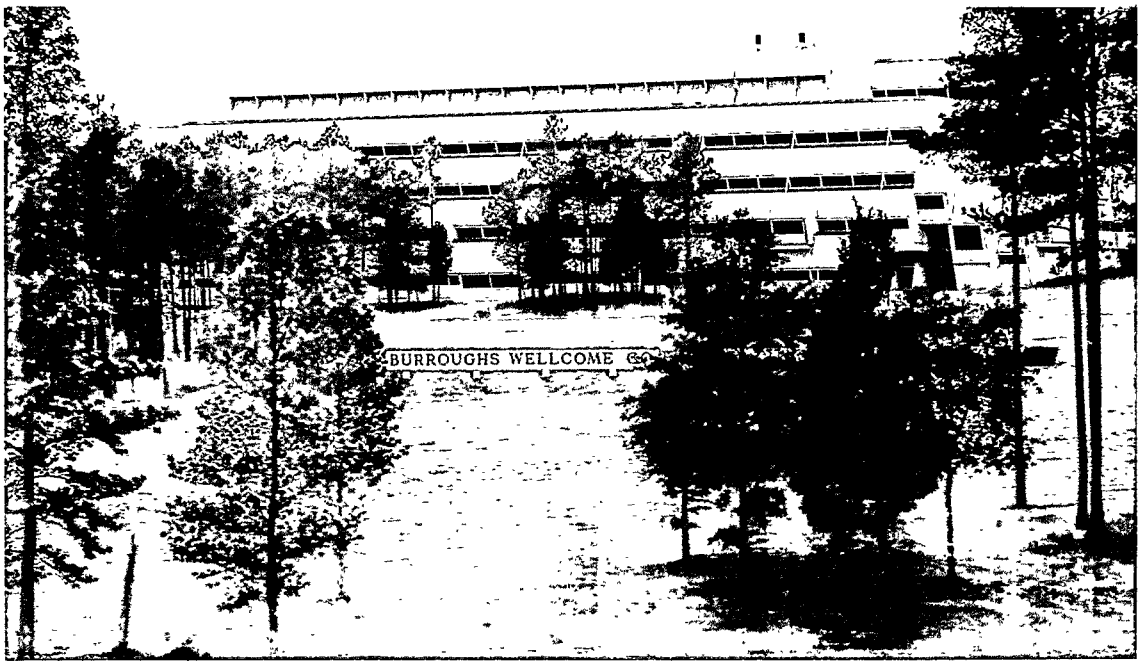
While this projected investment was made both by companies new to North Carolina and by those already in the state, it was often for jobs in high-paying sectors such as tobacco manufacturing or oil refining. In 1978, for example, the year Philip Morris announced its decision to build a major facility in Cabarrus County, tobacco manufacturing led the list of industrial sectors in the amount of investment capital committed to North Carolina. And in 1979, when a multi-million dollar oil refinery was announced for Brunswick County on the coast, petroleum interests projected the state's highest investment figures.** Jobs in both sectors pay high wages.

In addition to the investment figures, new jobs created by industrial growth tended to be in higher

* I recall one instance when an Exxon official gave credit to a persistent wife of one of his vice presidents who was a Tar Heel and wanted to move home.

** On May 14, 1981, the Brunswick Energy Co. announced the cancellation of their plan due to increased production costs (from $400 million in 1979 to $1 billion today) and a declining demand for petroleum products.

A new "corporate citizen" at the Research Triangle Park.
Photo by Paul Cooper



The flight from farm to factory has become particularly apparent among tobacco growers.

wage sectors. The "big three" continued to account for large numbers of the new jobs – in 1979, 35 percent of all jobs in new and expanded industry. But in both 1978 and 1979, machinery manufacturers committed more new positions than any other sector. Electrical machinery, chemicals, transportation equipment, tobacco, and fabricated metals manufacturers also brought in substantial numbers of new jobs.

These new corporate citizens were familiar names on the Fortune 500 list: IBM, Exxon, Philip Morris, Miller Brewing Co., Eaton, Clark Equipment, General Electric, Squibb, FMC, Data General, and Crown Petroleum. A case study could be made of growth in the Triangle area of Raleigh, Durham, and Chapel Hill. Using the Research Triangle Park and the attractions of Duke University, the University of North Carolina, and North Carolina State University as lures, industry hunters brought a steady and diverse group of new companies to the area. IBM located in the Park in the 1960s and now has about 4,000 employees there. Pharmaceutical companies such as Burroughs-Wellcome, Bristol Myers, and Cutter Laboratories have put operations nearby, and other medical related businesses such as Squibb and Ajinomoto of Japan have found a home near Raleigh.

The third element in "balanced growth" – geographical dispersion – has also had an impact on recent industrialization in North Carolina. Historically, the crescent stretching through the Piedmont – from Raleigh to Durham across Greensboro and Winston-Salem to Charlotte – has been a well-defined corridor for industrial growth. This strip remains the industrial heartland for the state, but during the 1970s industries also invested in the smaller communities outside this corridor. While the Piedmont still received the largest share of investment dollars, substantial investment also went into eastern North Carolina counties – Brunswick, Columbus, Robeson, Nash, Martin, Beaufort, Johnston, Wilson, Wayne, Lenoir, and Halifax – as well as into the western counties of Buncombe, Burke, McDowell, and Rutherford. Even in the Piedmont, development often occurred on the fringes of urban concentrations rather than within metropolitan areas, which explains why 70 percent of the announced industrial investments during the past decade took place outside the state's major cities. (DOC Research Report, Vol. 3, No. 2).

Thus the state's growth in recent years has been both diverse and in industrial sectors that include high paying companies, a type of growth that offers alternatives to tobacco farmers. While many of the Fortune 500 companies relocate professionals from other parts of the country – particularly such high technology concerns as IBM, the new research facilities often spawn manufacturing operations which draw on local workers. Data General, for example, first located a research and development facility in the Park and then built a manufacturing operation in nearby Johnston County, in the eastern part of the state still known to many as "tobacco road." Such facilities offer displaced tobacco farmers a place to go as do traditional sector jobs. The percentage of factory jobs in textiles, apparel, and furniture, while still substantial, has declined annually and now accounts for just over 50 percent of the state's industrial work force.

The record, then, shows that industrial growth during the 1970s had the effect of creating an alternative job market for tobacco growers at a time when the farming of this important crop began to depend less on manpower and more on machines. Whether the state's policy to encourage industrial growth represents a response to the displacement of tobacco farmers or mere coincidence is difficult to know, especially in a state where support for tobacco is vital politically as well as economically. North Carolina does not – and perhaps should not – have a stated policy of converting tobacco farms to factory sites. But in its search for "balanced growth" the state has promoted the location of new factories in rural counties with the clear intention of creating new jobs in areas previously dependent on tobacco farming for economic survival. □

Protein extracted from tobacco leaves.

"A Revolutionary Upheaval"?

Tobacco For Protein

by Bruce Siceloff

Biologists, nutritionists, and agricultural authorities are convinced that tobacco can and eventually will be cultivated and marketed as a source of protein. But until more agronomic and economic research is done, no one is prepared to say how soon that will happen, and on how large a scale.

From the breeding laboratory to the field to the processing plant, tobacco grown for protein will be a new crop altogether – a distant cousin of burley and flue-cured smoking leaf. If it is ever grown on a commercial scale in North Carolina, even the most enthusiastic observers predict it will be only as an alternative, coexisting with the traditional tobacco crops rather than supplanting them.

Since the early 1970s, scientists in several laboratories – including the U.S. Department of Agriculture (USDA) Tobacco Research Laboratory near Oxford, N.C. – have worked to find ways both to extract protein from tobacco leaves and to utilize the tobacco pulp once the protein has been removed. Begun in the aftermath of the 1964

A staff writer for the Raleigh News and Observer *since 1976, Bruce Siceloff frequently reports on the tobacco industry. Photos were taken by Jesse Lam at the USDA Tobacco Research Laboratory near Oxford, N.C.*

Surgeon General's Report on Smoking and Health, the USDA research initially focused on developing a "safe" cigarette by removing the harmful components of the leaf. But the Oxford scientists soon discovered that the process they had developed, called homogenized leaf curing, also was ideal for removing the high-quality protein that earlier researchers had found to be abundant in tobacco leaves. So they shifted their interest to the nutritional prospects of tobacco.

A leading spokesman for the protein potential has been Dr. Donald W. De Jong, who directed the USDA protein research until 1979, when he left the Oxford lab for a private-industry research job. De Jong sees the American research in this field in a global context. "There's a lot of interest in tobacco protein overseas. Groups in France and Italy are now working on it. They're even shorter on protein than we are. It'll take off eventually, I'm sure – perhaps when pressures [for protein] get a little tighter."

But De Jong also realizes that the new use of the product would have to fit into the local agricultural economies. He doubts that the high-technology feats of the protein-extraction plant will ever push flue-cured tobacco out of the field it has dominated for a century. "I envision it as a dual system," says De Jong. "You'd have farmers growing leaves pretty much the traditional way, and you'd have another, parallel system that would put more emphasis on protein production. Farmers could opt to go along with either one."

State Officials Cautious

North Carolina officials agree with De Jong about the potential value of tobacco for the nutritional needs of a hungry planet. "I am convinced, in the long run, whether from tobacco or other sources, that leaf protein is going to become a diet source for animals and humans," says Dr. Thurston Mann, tobacco research chief for the N.C. State University (NCSU) Agricultural Research Service.

Even so, North Carolina farm leaders are not pushing for further study that would answer crucial questions about its viability as a commercial crop. They seem to fear some of the answers, already suggested by preliminary study, that further research would likely reveal. In discovering new protein uses for tobacco, scientists also may succeed in developing a new, inexpensive form of smoking tobacco. Researchers are confident that deproteinized tobacco – the green, mushy pulp that remains after protein has been extracted from the leaves – can be processed into a mild smoking leaf that could cut into the portion of flue-cured leaf blended into every cigarette.

The flue-cured tobacco grown in five southeastern states, prized for its high nicotine content and aroma, makes up about 45 percent of the tobacco used in American-made cigarettes. Flue-cured's share in the cigarette blend has declined in recent years, due to the rise in cheap imports and changes in cigarette manufacturing practices, and it could be expected to drop even more with the introduction of an inexpensive filler tobacco.

USDA scientists now believe that tobacco grown almost anywhere – and varieties exist from the equator to Siberia – can be deproteinized and then processed into a mild, low-tar filler that is somewhat less flavorful than flue-cured but also less costly to produce. If a satisfying tobacco aroma could be developed in processing plants anywhere in the country, and if this deproteinized leaf became acceptable to cigarette manufacturers on a wide scale, it could threaten the Virginia-to-Florida flue-cured belt's multi-billion dollar monopoly on flavor.

"It would cause a revolutionary upheaval in North Carolina," says John H. Cyrus, N.C. Department of Agriculture tobacco affairs chief. "I doubt you could prevent it from being grown all over the country. That would mean the elimination of the [federal] tobacco program, the tobacco auction system, and so on."

While cautious about the protein potentials of tobacco, state officials also realize they cannot afford to ignore the implications of recent research. "We're looking into the feasibility of it. If it's going to happen, we want to be in on the ground floor," Cyrus says. "Maybe we can get a jump on the rest of the country. We don't want to stand idly by and let someone out in California take the rug from under us and run with it."

In the summer of 1980, the N.C. Farm Bureau, the largest and most influential farm advocacy group in the state, quietly started a protein-extraction pilot plant near Wilson. "We want to be as sure as possible that this stuff does not become a direct competitor with flue-cured tobacco," says John W. Sledge, president of the N.C. Farm Bureau. Like Cyrus, Sledge seems to understand the importance of being "in on the ground floor." But thus far, Farm Bureau officials have refused to release details on their protein project, saying only that they will delay public discussion until they can report some results. A clue to the direction of their efforts may lie in Sledge's suggestion that deproteinized tobacco be marketed as animal fodder or fuel for methanol production.

Considering the many political and economic threats to the existing tobacco farm system and the fervor with which state officials defend tobacco, their caution is not surprising. But what if De Jong and other researchers are right? What if tobacco could become a source of protein for a hungry world?

Promises and Problems of Tobacco Protein

A high-quality protein called Fraction-I and other useful proteins are abundant in the leaves of all green plants. In 1947 a team of California scientists first identified the enzymatic reaction that isolates Fraction-I in tobacco. Dr. Samuel G. Wildman, a recently retired UCLA biologist, was part of that team and has been a pioneer in tobacco protein research for the past three decades. Scientists have recently learned to extract protein from a variety of plants including alfalfa, spinach, cotton, rice, wheat, tomatoes, and corn. But only from tobacco have they learned to extract Fraction-I easily and in an unadulterated, crystalline form.

A single acre of tobacco grown for protein purposes, Wildman reports, could yield:

- 1,188 pounds of insoluble proteins that could be added to bread and other solid foods or used like soybean extracts;
- 1,166 pounds of several water-soluble, tasteless, and odorless proteins known collectively as Fraction-II, which could become an additive to beverages, soups, and snack foods or could replace soybeans as a major source of animal feed, thus freeing more soy protein for people of developing nations;
- 286 pounds of pure, crystalline Fraction-I protein, which far exceeds soy protein in nutritional quality and has potential medical uses.

Of the nine amino acids considered essential to the human diet, Fraction-I has concentrations of eight which are equal to or greater than the minimum set by the United Nations Food and Agricultural Organization. For all nine amino acids, soy protein has less than half the levels of Fraction-I. In a test to measure what is called the protein efficiency ratio, rats fed Fraction-I gained 22 percent more weight in four weeks than did rats fed milk protein, which was the yardstick for the test. And soy protein tested about 20 percent below milk protein.

While Fraction-I probably would be too expensive for ordinary food use, its purity and high digestibility may give it valuable medical applications. Wildman believes, for example, that it could be added to the liquid diets of patients with pancreatitis, gastrointestinal tumors, and other diseases involving maldigestion and malabsorption. It might be fed to infants who are allergic to cow's milk and who cannot get human milk. Patients with aggravated kidney disease, who must severely limit sodium and potassium consumption and must undergo frequent hemodialysis to wash these salts from their blood, might need dialysis less frequently if mineral-free Fraction-I were made an important part of their diets.

To get the protein yields described above, farmers would grow and handle tobacco more like a silage crop than like traditional smoking tobacco. They would sow seeds directly into the field, up to 150,000 plants per acre, and harvest the crop with a mower in about six weeks, when, according to Wildman, the leaves of the 18-20 inch-tall plants have their peak protein content. The cut plants would sprout new stalks and leaves, allowing up to six successive harvests in a growing season of six to eight months. Wildman projects that a single acre of such a "close-grown" crop could produce up to 66 tons of tobacco per year. This harvest could

Tobacco harvested in a "close-grown" method for use in protein extraction.

measure 6.6 to 13 tons of dried leaf, depending on moisture content, compared to a conventional dried leaf crop in North Carolina of about one ton. The 6.6 tons from a "close-grown" crop would produce 2,640 pounds of protein – almost four times the protein gained from one acre of soybeans, according to Wildman.

Tobacco growers would have to make a major adjustment in traditional planting and harvesting methods for a "close-grown" crop. Flue-cured and burley are sown in seedbeds during winter and transplanted to the field in the spring, about 6,000 seedlings per acre (in contrast to Wildman's 150,000 seeds directly planted). Farmers harvest about four leaves per plant each week, moving up the stalk as the leaves mature. Then the flue-cured is scorched in a curing barn until it turns golden and sweet; burley is air-cured in unheated barns.

Some agronomists doubt that Wildman's projections for protein yields could be realized in North Carolina. They point out that his estimates depend on a growing season longer than the state's average of five and one-half months, and they warn that direct seeding of tobacco – as opposed to the traditional transplanting – would bring new weed, disease, and pest problems that would limit protein yields. Also, the widely used flue-cured and burley strains have been bred so that much of the leaf protein breaks down quickly as the plant matures (protein is not desirable in cigarette smoke because it burns poorly and with the bitter odor of burnt feathers).

But no plant has been more thoroughly studied and manipulated in the breeding laboratory than tobacco, and protein researchers are confident that plant geneticists can develop new strains that will produce more protein and release it more readily than do the breeds that have been tested by Wildman in California and De Jong in North Carolina. If the researchers are right, Wildman's projection of more than a ton of proteins per acre could prove to be low rather than high.

USDA researchers have paid attention to the concerns of farm leaders that a market must be found for the tobacco pulp remaining after the protein extraction. At Oxford in the 1970s, De Jong developed a process called homogenized leaf curing (HLC) in his quest for a safer cigarette. In the HLC process, immature, green leaves are washed, chopped, and ground into a semi-liquid slurry that is pressed into a sheet with the juices squeezed out of it. De Jong extracted leaf proteins from this liquid. Researchers hope that, by chemically manipulating the juices squeezed out of it, they can learn to neutralize the tobacco components that turn into carcinogens in cigarette smoke.

The deproteinized leaf comes out as a green mush that is dried and pressed into sheets much like wood chips made into particle board. It is low in tar and nicotine. It does not have a pleasant smell at first, but it acquires one. "After three years on the shelf it has a good aroma and a nice color," says Dr. T.C. Tso, a USDA researcher in Beltsville, Md.

De Jong believes deproteinized smoking tobacco could be produced more cheaply than conventional leaf since the "close-grown," multiple-harvest method would produce greater yields per acre while requiring far less labor since it could be mechanized from seed to processing plants. "The tobacco companies told us informally that they could use a material that was bland, that had some

Leaves being fed via conveyor belt to vertical pulverizer.

nicotine in it, provided it did not have an objectionable odor that had to be masked," De Jong says. "They could add the flavoring to it – that would be no problem."

Developing deproteinized tobacco as a cigarette filler product could be the key to making the "close-grown" crop commercially viable. But North Carolina tobacco leaders, viewing this possibility as too much of a threat to current flue-cured and burley production, have instead advocated less lucrative uses such as methanol production or animal fodder.

Further Research Needs

Tobacco proteins could be used for food and medical purposes only after years of testing by the U.S. Food and Drug Administration (FDA) to ensure safety. "We need to do a lot of research with the protein, to feed it to animals and even, down the road, feed it to humans," says Dr. James F. Chaplin, director of the USDA lab at Oxford. "[We need] to try to extract protein on a commercial basis, on a large scale." More study is needed, too, to find the best ways to grow and market this new crop and to perfect the smoking quality of the deproteinized tobacco.

Work at Oxford, stalled for more than a year after De Jong's departure in 1979, cranked up again early in 1981 under his newly appointed successor, Dr. Denise Blume. Dr. Blume said she was resuming study of protein extraction and development of a "safer" cigarette, but she said the Oxford lab would need to find additional funding before it could set up a pilot plant for protein extraction in summer 1981. USDA researchers hope further research can improve the smoking quality of deproteinized leaf. Farm leaders in North Carolina, however, do not seem to share their hope.

N.C. State University (NCSU) researchers, for example, who frequently work with Oxford scientists, are waiting for Blume to take the lead in protein study. "Right now, we're committed to the continued production of a quality [traditional tobacco] product as a smoking material," says Mann, the NCSU tobacco research chief. And, even in spring 1981, the N.C. Farm Bureau would not release specifics on its pilot extraction plant near Wilson.

Echoing the concerns of Farm Bureau President Sledge, N.C. Department of Agriculture tobacco chief Cyrus, and other farm leaders who want to protect flue-cured tobacco's dominant position in the industry, Chaplin downplays De Jong and Tso's insistence that deproteinized leaf can be developed as a smoking material. "We want to develop protein use in a way that dovetails into the existing tobacco industry. We've about come to the conclusion that it's going to be really difficult to use tobacco both for smoking and for protein," Chaplin says. Chaplin's lab, occasionally threatened with termination of funding by the anti-smoking lobby in Washington, owes its continued existence in part to the good will of North Carolina's congressional delegation, which tends to respond to such groups as the Farm Bureau on tobacco matters.

Conclusion

Most tobacco policymakers, farm researchers, and farm leaders seem hesitant to embrace the advantages that tobacco-for-protein may offer. The long-term opportunities for the crop seem unlimited in a world already scarred with famine. Yet no one is pursuing the research needs aggressively; no one is advocating that North Carolina become a leader in experimenting with this crop. With few exceptions, such as the UCLA findings and some USDA work, research seems to be motivated by fear more than by a sense of opportunity.

To the powerful anti-smoking lobby, protein offers an alternative for tobacco that is unassailable. To champions of tobacco, protein extraction could represent an important marketing option that complements – not replaces – the existing tobacco crop. Farms could remain small: A single acre could produce nearly four times as much protein as an acre of soybeans. And the federal tobacco program could probably be amended to accommodate the tobacco-for-protein crop.

Research needs to be done, certainly, to ensure that this alternative is a viable commercial enterprise. But what scientists have already demonstrated – in the laboratory and in the field – should assure even policymakers with very different views that harvesting tobacco for protein might well be an alternative for the flue-cured tobacco farmer, an alternative as attractive to the most strident anti-smoking voices as it is to the most provincial pro-tobacco spokesmen.□

"Deproteinized" tobacco that has passed through the homogenized leaf curing (HLC) process.

N.C. Gov. James Hunt (L) and former U.S. Sen. Robert Morgan.
Photo courtesy of Raleigh *News and Observer*

"A Load Not Easy To Be Borne"

The Politics of Tobacco in North Carolina

by Ferrel Guillory

In the politics of tobacco, North Carolina is the Atlas of states. Of the tobacco-growing states, none is more powerful than North Carolina. However, as the mythological Atlas was condemned to hold on his back "the cruel strength of the crushing world," so Tar Heel politicians are fated with the burden of protecting the people who grow and sell the controversial golden leaf. It is, as the Greek poet Hesiod wrote of Atlas' task, "a load not easy to be borne."

Tobacco's political base is not nearly as strong as it was a decade ago. The scientific evidence connecting cigarette smoking to lung cancer and heart disease makes defending tobacco more difficult for a politician, and the influence of anti-smoking forces has increased. At the same time, Congress is less dominated by veteran, powerful Southerners sympathetic to tobacco-growing.

Since 1972, Ferrel Guillory has been a political reporter for the Raleigh News and Observer, *as the chief capitol correspondent and head of the Washington Bureau. Now associate editor, he is responsible for the editorial page.*

"In this state, tobacco is still king. And we intend to keep it king."

Gov. James Hunt campaigning for re-election, 1980.

In response to anti-smoking pressures, North Carolina politicians are groping for new strategies, shifting the tone and emphasis of their arguments in defense of tobacco. For example, they contend less frequently that the link between cigarette smoking and disease has not been proven conclusively. "We have absolutely withdrawn from that fight of defending cigarette smoking," says Congressman Walter Jones (D-N.C.), member of the Tobacco and Peanut Subcommittee of the U.S. House Agriculture Committee. At the national and at the state level, North Carolina's politicians are in a transition.

In Washington, they are focusing their attention more exclusively on the price support system, defending it as a social program which can preserve the family farm and rural culture. "I no more want to tie my defense of tobacco farmers to health than a Detroit automobile manufacturer wants to tie his defense of automobiles to emission controls or accidents," former U.S. Senator Robert Morgan (D-N.C.) said in a May, 1980, speech. "If there are those who want to drive a knife into the heart of one of the last islands of traditional rural life and threaten numerous rural communities, then cut out this program."

In Raleigh, Governor James B. Hunt has sought expanded industrialization in rural areas, and state Agriculture Commissioner James A. Graham has promoted agricultural diversification. Both strategies suggest a recognition that tobacco may not always dominate North Carolina as it has in the past. But if politicians have come to such a realization, they do not admit it publicly. "In this state, tobacco is still king," said Hunt in May of 1980. "And we intend to keep it king."

Tobacco-state officials retain some important political advantages. Tobacco remains a legal crop, with no serious attempt being mounted to alter that situation. Further, the tobacco price support system is the only commodity program with a permanent authorization in federal law. Strategically, this puts tobacco-state congressmen in a stronger legislative position than corn- or wheat-state congressmen who must appeal regularly for a renewal of the government programs vital to their constituents. Tobacco-state representatives have to do nothing in order for the leaf program to continue except defend it against challenges.

Within the state, politicians have another kind of advantage by remaining pro-tobacco. Nearly 300,000 North Carolinians are employed in producing and marketing tobacco and making cigarettes. Joseph W. Grimsley, N.C. Secretary of Administration and former campaign manager for Gov. Hunt, calculates that 40 percent of the Democratic Party vote in the state is east of a line from Durham to Fayetteville, the region most heavily dependent on tobacco production.

Pro-tobacco politicians may have an easier time at the polls in state races, and North Carolina's congressmen may be able to sustain the government's tobacco program. But even working together, they cannot control all the forces affecting demand for their state's major cash crop. Some congressmen concede that the pro-tobacco position, in five or 10 years, could suffer some losses. If fewer people smoke, particularly teenagers who may be influenced by federal anti-smoking efforts, cigarette sales will decline. At the same time, "low-tar" cigarettes, which contain less tobacco than "full-flavor" brands, are gaining a far larger share of the market than in the past. Moreover, high-quality foreign tobacco costing half as much to produce as American leaf may create stiff competition in traditional export markets. All these factors combined could significantly reduce tobacco production in North Carolina.

Should demand for North Carolina tobacco decrease dramatically, profound economic and

social changes in the state would follow. However, precious little political leadership is being exercised to prepare North Carolinians for that eventuality. Politicians simply do not perceive the political climate conducive to a frank discussion of a future with less dependence on tobacco.

Shifting Alignments in Washington

North Carolina's congressmen have in effect abandoned the health issue to the cigarette industry lobbyists, letting the industry fight administrative and regulatory actions such as the Department of Health and Human Services anti-smoking campaign and the Federal Trade Commission limits on cigarette advertising. By focusing on federal legislation, such as the federal cigarette tax and the farm support program, the state's delegates in Washington are exercising their power where they have the most leverage.

"The tobacco area congressmen as such perhaps had a greater impact back in the days when Harold Cooley was chairman of the [House] Agriculture Committee," says U.S. Rep. Charles Whitley (D-N.C.). Even so, North Carolina members of Congress, as well as those from other tobacco states, still hold key committee positions helpful in defending tobacco. Whitley, Jones, and Congressman Charles G. Rose (D-N.C.) sit on the House Agriculture Committee. Rose chairs the Tobacco and Peanut Subcommittee, where he can make tradeoffs with congressmen from other states. In the Senate, Sen. Jesse Helms (R-N.C.) is the chairman of the Agriculture Committee.

From this base, North Carolina congressmen can build broader coalitions as a part of their new strategy for backing tobacco. As a senatorial aide put it, "The politics of tobacco is really the politics of a coalition of agricultural interests." At the conclusion of a pro-tobacco speech on the Senate floor in 1980, then Sen. Morgan seemed to be speaking to a broader group of potential allies than tobacco spokesmen have in the past. If the tobacco program is gutted, Morgan warned, "Watch chaos enter into an otherwise stable and tranquil area. Watch the number of family farms decline even more."

Sticking together has become a more visible strategy in recent years. In 1977, for example, the House of Representatives, by a 229-178 vote, made tobacco ineligible for export under the Food for Peace program. The defeat stunned tobacco-state congressmen. Sponsored by a little-known Colorado Republican, the bill showed that Congress, without a vigorous counter-effort by tobacco defenders, was willing to strip away some government-endowed advantages for tobacco. The Food for Peace program, which historically had included tobacco along with foodstuffs, was a vulnerable target in Washington because of the celebrated anti-smoking campaign of Health, Education, and Welfare Secretary Joseph Califano.

The Senate eventually restored tobacco as a legal part of the Food for Peace program, largely because of the efforts of the late Sen. Hubert H. Humphrey of Minnesota, who supported the tobacco program out of loyalty to farm support systems. Even with Humphrey's intervention,

Former President Carter on his visit to Wilson, N.C., in 1978 From left: Insurance Commissioner John Ingram, Carter, Attorney General Rufus Edmisten, and Secretary of State Thad Eure.

Photo courtesy of
Raleigh *News and Observer*

there were 37 votes in the 100-member Senate against tobacco.

Later in the 1977 session, legislation to phase out the tobacco price support program was deflected when tobacco-state congressmen let it be known they would vote against a sugar support program if sugar-state congressmen did not back tobacco. And in another effort to broaden political support for tobacco, seven North Carolina congressmen voted in 1978 for federal loan guarantees for New York City. "That was our tobacco swap," Rose said later. "We'll try to help New York if New York will help the tobacco area."

As a general strategy, North Carolina congressmen seek to keep tobacco-related legislation off the House and Senate floors, for fear that a bill involving tobacco will provide anti-smoking forces an opportunity to try to change the government's policy toward the commodity. As 1981 approached, when other commodity programs were due for renewal, there was discussion in Washington over whether to have a section in the Omnibus Farm Bill make some changes in the price support system, particularly to help with export sales. A similar issue arose in 1977 and provided an illustration of the political influence of the North Carolina Farm Bureau Federation. At that time, farm organizations from every other tobacco-growing state backed some alterations in the price supports, but as a result of the lone opposition of the North Carolina organization, the idea of tobacco legislation was scuttled.

While the farm support program occupies the principal attention of the congressional delegation, recent efforts to increase the federal cigarette tax, which has remained at eight cents per pack for about 25 years, have also caused some concern. But in the new spirit of cooperation, tobacco-state congressmen show a begrudging tolerance for the possibility of a modest increase. "A slight increase in tobacco taxes might be hard to defeat," said Jones. "I'm not accepting it, but I don't think a slight increase will cause any great havoc in the retail market."

"It's Perceived As A Sensitive Subject"

While the state's congressmen in Washington have the primary responsibility of maintaining the farm support program, the Raleigh-based political leadership has a more narrow responsibility: to promote the concerns of tobacco farmers and cigarette manufacturing already in place in the state. But such a task is getting more difficult than it was in the past. "Basically, you have to fight a delaying action," says Grimsley, the Hunt cabinet member. "In time tobacco will be a much smaller economic factor. That's why we have to get industrial jobs in the east."

Publicly, state officials have not yet admitted the possibility that the tobacco economy could be in a decline. Hunt has not linked his search for new industry with a threatened tobacco economy, and Agriculture Commissioner Graham has not described crop diversification as an alternative to tobacco. Instead, North Carolina officials have fought the most visible and easily accepted battles.

For a while, HEW Secretary Califano was an easy target for Tar Heel officials to score points with their constituents. Hunt and Morgan met with President Carter about Califano's anti-smoking campaign, and later Carter agreed to come to Wilson, N.C., where he reaffirmed his support for the tobacco program. But at the same time, Carter permitted an expanded anti-smoking campaign to proceed. And when Califano left the cabinet, state officials not only were left without their bete noire, they also faced the reality of a changing tobacco world.

Recently, state officials have begun to confront at least some immediate threats to tobacco. In June, 1980, for example, before the annual gathering of the Flue-Cured Tobacco Cooperative Stabilization Corporation, Hunt gave a pro-tobacco political speech, but he also issued a sober warning. He told the farmers that unless they moderated their use of the chemical MH, which controls tobacco suckers, Germany, one of North Carolina's largest foreign tobacco markets, might not buy North Carolina tobacco. Stabilization has since initiated a program to monitor excessive

Preparing for curing.
Photo courtesy of N.C State University

North Carolina politicians are not so much exercising leadership as they are being controlled by circumstances.

MH residues, a step that might help retain the lucrative German market.

While some hard talk on tobacco seems more possible than in the past, a tentative political freedom seems to be emerging as well. There is still no room in North Carolina politics for waffling on the price support program, but, says Grimsley, "you can talk about it [smoking] as a youth education program." Governor Hunt reportedly told Califano that he would encounter no problems from North Carolina on his program of public health education on smoking.

State leaders have so far limited their public discussions of tobacco's problems to meeting short-term emergencies like the MH issue or to accepting unpopular federal programs like the anti-smoking campaign. Without shouting about it, however, the Hunt administration apparently understands that industrialization could be needed to pick up the economic slack left by a possible tobacco decline – if not immediately, then in the next generation. And Graham seems to understand that tobacco is going through some profound changes as well.

"In 20 years, 10 years, there's definitely going to be some change," explained Graham in a lengthy interview, which he opened by offering his visitor a gold tobacco leaf lapel pin. "Smokers' tastes are different. This new generation coming on, I'm not sure what they'll be. . . . I don't stand up for tobacco because it will help me politically. I stand up for tobacco because I think it's right. . . . I'm not against tobacco, but tobacco has to make some adjustments."

Then, inadvertently, puffing on a cigar, Graham illustrated the quandary in which North Carolina politicians find themselves. He pointed to pictures of his grandchildren on the shelf behind his desk. "When your own grandchildren, when that pretty young thing up there asks you about smoking – Bam!" The back of his hand slashed quickly across his desk, signaling how vigorously he would rebuke a youngster wanting to smoke. Even though they know intellectually that the future of tobacco depends heavily on a new generation of smokers, Graham, as well as many other North Carolina politicians, would discourage a teenager from smoking.

Finally Graham turned his attention to the political evolution in his home state. New attitudes are accompanying new industry, he said. With Hunt, who grew up on a farm, as governor, Graham said, there remains a strong advocate for tobacco and other agriculture programs. But beyond 1984, Graham speculated, "that's when you're going to see a turn, a whole new outlook on how this state is ruled. We are definitely moving out of an agrarian society into a mixture."

By seeking out new industry, Hunt is stimulating this evolution, which ultimately should diminish further tobacco's importance in the North Carolina economy. Hunt continues to advocate the cause of tobacco growing and manufacturing in the state, but, without publicly articulating it, he is in effect attempting to expand an industrial base that may one day provide an alternative to the economics of tobacco. In that sense, a politician is trying to control events with a bearing on the future of this tobacco-oriented state.

But as they approach the issue of tobacco's future, North Carolina politicians are not so much exercising leadership as they are being controlled by circumstances. By refusing to address frankly tobacco's possible demise, they risk losing the opportunity to regain control over events that will affect the lives of every North Carolinian. If tobacco farming is going to decline, political leaders have a responsibility to address the dilemma head-on – to find ways of preserving rural traditions, to stimulate more intensive research on tobacco as a source of nutrients rather than nicotine, to seek alternatives, and to explore options before the future arrives.

"It's perceived as a sensitive subject," says an aide to a North Carolinian in Congress. "Your average politician thinks in the short term. We're talking about long term." And all the while, Atlas' burden is getting heavier. □

Budget Cut Fever Wounds Tobacco

by Robert Hodierne

WASHINGTON – Rep. Charles Rose (D-N.C.) has uttered the unutterable. The Chairman of the House Tobacco and Peanuts Subcommittee, a man with 14,000 tobacco farmers in his district, has suggested raising the federal cigarette tax. This heretical deviation from established tobacco-country dogma indicates just how threatened supporters of tobacco farmers feel in Washington these days. After all, the federal cigarette tax, set at eight cents-a-pack in 1951, has not been altered in 30 years. Despite almost annual attempts to increase it, congressmen from the Carolinas, Virginia, and Kentucky have always treated such proposals as direct threats to family farms and the American way of life.

Rose is willing to talk now about a cigarette tax hike because he sees it as a possible way to underwrite the growing losses the tobacco program is suffering. Paid for by taxes at a time when a budget cutting revolution is sweeping through Washington, these losses make the program especially vulnerable to political and fiscal attacks.

The debates over the program have shifted from a health orientation to the bottom line of costs to the taxpayer. On March 12 of this year, David Stockman, director of the Office of Management and Budget and leading architect of the Reagan administration cuts, told the Senate Budget Committee how he viewed the tobacco price support program: "...mostly it is a positive cost to the government, and I think it is too costly and we ought to find some way to do something about it."

On May 12, an unlikely ally for Stockman emerged, Sen. Howard Metzenbaum (D-Oh.). On the Senate floor, he proposed an amendment to the budget resolution that would have deleted $79 million to be used by the Commodity Credit Corporation for tobacco loans. The Senate defeated the amendment by a 56-42 vote. Not since the late 1930s has the program been so threatened – either in Congress or within the federal administration.

When defending the price support program, tobacco backers always point out that it doesn't cost much. Literature distributed by grower and industry groups as well as their supporters in Congress put the cost of the program since its start in 1933 at $57 million in losses to the government. But the $57 million figure seriously understates the cost of the program, a fact that has not escaped the eyes of the Reagan budget team. In the first wave of cuts under the new administration, the tobacco program has already been wounded twice.

In past years, the federal government has paid for the grading of tobacco, an essential step in the leaf marketing system. Tobacco support levels are set for each grade of the leaf, and there are over 130 different grades. To insure that the system works without fraud, government employees place the tobacco into a particular grade. The services of these federal graders cost taxpayers $6.5 million in 1980, and the Stockman team decided that item could go. This season, federal graders will still be at the warehouses, but tobacco farmers will have to pay for that service, not the nation's taxpayers.

A more complicated budget-saving step taken by the administration involves loans from the Commodity Credit Corporation (CCC) (in conjunction with the USDA tobacco program) to farm co-ops (including tobacco co-ops). In the past, the CCC set the interest rate once a year for the loans to the tobacco co-ops at a rate which was often well below market levels in the course of the next 12 months. This resulted in the federal government sometimes loaning money to farm cooperatives at interest rates lower than those at which it was borrowing. For the 1980 crop, for instance, the tobacco co-ops borrowed money from the CCC at 11.5 percent, but during the year the U.S. Treasury borrowed the money it loaned to the co-ops at interest rates as high as 15.1 percent. This interest rate differential was functioning in effect as a subsidy to the tobacco program.

In 1980, this subsidy cost taxpayers about $6 to $8 million, according to the USDA. The Reagan administration has altered this system so that the rate for the CCC loans to the tobacco co-ops is adjusted to the prevailing market rate twice a year. In 1981, taxpayers will not underwrite this subsidy; the tobacco co-ops will absorb the extra interest costs.

The two Reagan administration money-saving actions – eliminating the federally funded grading

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service and changing the interest-setting system on CCC loans to co-ops – would have saved the taxpayers about $13 million under 1980 conditions, a small amount when considering the size of the federal budget. But there is a much larger cost to the taxpayer for the tobacco program, one that is rarely mentioned and even less frequently understood: the interest on loans that tobacco cooperatives have failed – and will fail – to repay. No one at the USDA or at CCC has computed the total. But Lester LeCompte, CCC controller, estimates that the total cost of the interest subsidy plus the interest that has not been repaid at all comes to well over $500 million since the program began.

The largest of the co-ops, the Raleigh-based Flue-Cured Tobacco Cooperative Stabilization Corporation, has failed to repay $127 million in interest since 1946, according to its general manager Fred Bond. (Bond is quick to note that it *has* repaid $171 million in interest.) But there are signs that the 13 tobacco co-ops may not be able to repay larger amounts in the future. The co-ops purchase tobacco which does not bring a market price at least one cent above the federal price support level for that grade. In the past seven years, inventories of leaf purchased by the co-ops have increased dramatically, especially in the lower grades. Imported tobacco at comparable grades sells at about half the American support price level and has hence become a more attractive buy than American low-grade leaf. The current inventory in all tobacco co-ops stands at about 592 million pounds, worth $835 million, which is up from $652 million just four years ago but down from the 1979 peak of $903 million. The 1974 crop is the last one which has been completely sold from inventory. Receipts from those sales were enough to pay off the principal owed CCC but fell $7 million short on interest owed, according to USDA figures. Bond puts that interest shortage at $5.9 million and estimates that the 1975 crop will fail to repay about $9 million in interest.

As long as the cheap imported tobacco is available and cigarette makers keep buying it instead of domestic leaf, USDA economists worry that there will be increasing difficulty in moving tobacco out of the co-ops' inventory. The longer it sits there, the higher the interest bills and the higher the costs of the tobacco program. If cost analysis is to be the most important criterion of the Reagan administration for continuing a federal program, the recent Senate vote on the CCC loans might signal even closer calls for the program's repeal.

Discussions continue among tobacco groups, policymakers, and others concerning the possibility of limiting imports of foreign tobacco. But solving the inventory problem of the co-ops via this route appears unlikely. For example, the manufacturers are staying away from the issue and do not plan to take part in the International Trade Commission hearings on tobacco imports this summer. "It's a grower's issue," says William Toohey, Jr., spokesman for the major tobacco manufacturing lobby, The Tobacco Institute. Such a stance has widened the growing schism between those who grow tobacco and those who roll it into cigarettes.

But meanwhile, the pace of Washington budget cutters does not allow for tobacco interests to work out their own problems. Tobacco congressmen are working overtime to insure the tobacco program's survival, even if it means considering an increase in the cigarette tax.

"I think we can keep the program," Rose says of the price support program. "The question is, how do we pay for it?...If we get caught in the squeeze of all budgets we might have to find another way to finance it."□

Buyers bidding on leaf which has already been graded.
Photo courtesy of N.C. State University

"In the Public Interest... Not a Constitutional Birthright"

Interview with former U.S. Secretary of Agriculture Robert Bergland

by Blaine Harden

Photo courtesy of Raleigh *News and Observer*

On March 31, 1980, Washington Post *staff writer Blaine Harden conducted a taped interview with then U.S. Secretary of Agriculture Robert Bergland concerning federal tobacco policy. A Midwesterner, Bergland had to learn tobacco from the top down. His successor, John Block from Illinois, has also had to absorb the nuances of the tobacco program while presiding over its administration.*

Unlike Block, however, Bergland had been a Congressman (1970-76), a product of Minnesota's Democratic-Farmer-Labor Party. Bergland was extremely popular in his Minnesota district (won 73 percent of the vote in 1976) and a prominent member of the U.S. House Agriculture Committee. A non-smoker from outside the tobacco belt, Bergland had a sympathetic ear for the anti-smoking lobby which became very active in the early 1970s. At the same time, Bergland represented a farm district and knew the importance of crop support programs. In 1976, Jimmy Carter, a peanut farmer with close ties to the tobacco-producing states, appointed Bergland Secretary of Agriculture.

During his tenure (1977-81), Secretary Bergland appointed a USDA Tobacco Task Force headed by Bobby Smith, a Georgian and a close friend of President Carter. Bergland, as this interview reflects, recognized that the federal program needed some modification and that smoking and health controversies would remain a factor in determining agricultural policies. Yet he felt that "it is in the public interest to maintain the price support program." The remarks below provide a valuable yardstick for assessing how the Reagan administration and those that follow will approach the perplexing problems of the federal tobacco support system.

Have the smoking-and-health controversies made you ambivalent about the federal tobacco program?

More than two years ago, then HEW [U.S. Department of Health, Education and Welfare] Secretary Joe Califano was engaged in an enterprise to acquaint the American people with the pitfalls of smoking. In the process, he aroused the ire of the tobacco producing industry in North Carolina. Joe called me to discuss the issue and we met and agreed on some ground rules. We in USDA [agreed] not to frustrate or complicate – indeed to support – the HEW studies on the effects of smoking. To the extent we can, we have contributed to the ongoing HEW research into smoking and health. Joe Califano in turn agreed he would not get involved in the price supports side of the industry because [the health and the farm support systems] were really two separate issues. We have conducted our affairs in similar fashion since. Pat Harris [Califano's successor] and I have continued this relationship.

Tinkering with price supports is simply fooling with the lever that has nothing to do with the central question. The smoking issue should be decided on its merit. In our view, reducing the

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Blaine Harden is a staff writer for The Washington Post.

Photo by Paul Cooper

From Family Farm to Corporate Structures

Interview with N.C. Commissioner of Agriculture James A. Graham

by Bill Finger

James A. (Jim) Graham has been Commissioner of Agriculture in North Carolina since 1964. A native of Rowan County, he earned a B.S. in agriculture at North Carolina State University and has been involved in the state's agricultural programs ever since. He has taught agriculture in Iredell County, been the superintendent of a research farm, served as secretary of the North Carolina Hereford Breeders Association, and managed the Farmers' Market in Raleigh. He has been president of the National Association of Market Managers and the National Association of State Departments of Agriculture. Graham still operates a farm in Rowan County where he has a cow-calf breeder operation. This interview was conducted in the Commissioner's office on April 24, 1981.

What responsibilities do you as Commissioner have for tobacco?

My role touches many areas. This Department regulates the proper use of fertilizers, of chemicals, of herbicides. Within the department we develop markets for alternate crops like sweet potatoes and hogs. I have two full-time tobacco men on my staff trying to assist in a better market, keeping up with the programs, offering assistance whenever we can.* Actual recommendations for growing tobacco is the role of the extension service and the researchers at N.C. State University.

As Commissioner, I really have no direct responsibility in the administration of tobacco programs, but I'm interested in it – to see that we keep the program performing and to defend tobacco. And I'm having a rough time with that now. There's always somebody knocking it. They think it's a subsidy. But it's one of the best farm programs we have. Farmers themselves helped design it and vote on it. It's a support price. They borrow the money from Commodity Credit and pay it back.

Now there's been a lot of talk about how much money's been lost. I'm told since the very incep-

* John Cyrus, director of Tobacco Affairs Section and Bobby Gentry, tobacco specialist.

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Bill Finger is editor of N.C. Insight.

BERGLAND continued

price of tobacco is not going to discourage smoking. And until the general public has decided on the fate of smoking, we believe it is in the public interest to maintain the price support program.

[The tobacco program] affects about 600,000 families. Tobacco is the sole source of income for, we think, about 100,000 families, the major source of cash income for another 100,000, and an important source of income for the rest. Unfortunately, it is the very small, remote farm that depends most heavily on tobacco, especially in the burley regions of Kentucky and Tennessee. Were it not for tobacco income there would be a wholesale abandonment of the region. Tobacco income runs anywhere from $1,000 to $2,500 an acre. The average operating tobacco farmer grows about 10 acres of tobacco – less in the burley regions and more in the flue-cured regions. For the most part, income from tobacco is greater than from any other crop on a per-acre basis.

Does the USDA price support system, by ensuring tobacco prices above open market levels, constitute a welfare program?

In some ways, that is true. There isn't any doubt that the tobacco program has had a major impact in the preservation of probably 200,000 of these very small farmers that have absolutely no economic alternative. It keeps those families busy in their hometown. They make a living. If they were forced to leave their communities and go into cities, how many would be tax users through welfare programs? I can't even guess. But I can say they are substantially better off today where they are in a rural setting with a fairly modest income. We are not talking about folks getting rich; we are talking about them staying alive. An objective [of the program] is indeed a sort of social engineering.

But as mechanization moves into the flue-cured tobacco business, we need to examine carefully the role of the government price support program. We have no intention of subsidizing persons who don't need federal subsidy. We are looking at the impact of price supports on farm size. We know that price supports [nationwide] benefit the very large farm a lot more than the small farm. Indeed, we argue that two-thirds of the farms in the United States benefit almost nothing from price supports. So this business of saving the small family farm by engineering high price supports can be a contradiction in terms.

Older farmers talk of their allotment as though it is a sacred birthright. If the government took away their allotment, they seem to think it would be a

GRAHAM continued

tion of this program years back that we haven't really lost but something like $56 or $57 million – compared to the amount of money that's gone into this whole massive thing. People don't realize that not only does tobacco production in this state affect the grower, but it also affects farm implement dealers, education institutions – the economic welfare of the state. We'd be in bad shape if we didn't have tobacco in North Carolina today.

What is the importance of tobacco to the state's economy?

Tobacco provides about one-third of North Carolina's total farm income, about $1.1 billion a year. Seventy-two thousand full-time equivalent jobs are directly related to the tobacco industry. About 265,000 people are involved in tobacco-related jobs either on a full-time or seasonal basis. That includes all aspects of the industry. When you get right down to production levels, 32,000 farm operators grow flue-cured in North Carolina, the major flue-cured state. About 6,500 people grow burley. These figures have been declining steadily during the past decade. Less people are growing it.

Is that primarily due to mechanization?

Yes. The operations are getting bigger. It's a fact of life, an economic thing. Tobacco probably mechanized faster than any other crop in North Carolina because of the shortage of farm labor and the high cost of farm labor with the minimum wage. In 1980, about 40 percent of North Carolina's flue-cured tobacco was harvested by a mechanical harvester and over 70 percent went into bulk curing barns, the replacement of those old wooden barns. Many tobacco farmers combined their operations, enlarged them, to justify mechanization.

Would you consider the purpose of the tobacco program as a kind of social engineering?

A lot of folks don't like for it to be looked upon as a social program. It keeps people on the farms. It helps provide them an opportunity to work and they're not on welfare, not on any social program. I don't think anybody's drawing food stamps now who's growing tobacco. A lot of our Christian people who love hard work don't understand why their commodity is always being shot at. You got to work to grow tobacco. It requires a lot of hand labor and it has maintained a family-like farm situation as we've known it over

crime similar to stealing their property. How do you view the "birthright" issue?

When we examine the tobacco program in 1981, we are going to examine that question.* I know it will be an emotional thing. But we are going to look at it to see whether there is any public benefit derived from a price support program that grants to an allotment holder a value that is simply a federal license. I have no interest in supporting a program that simply pumps a windfall account. There has got to be some public benefit from all of this – because [the allotment] is not a constitutional birthright.

Do you anticipate any changes in the support program?

We are having some problems with the program, but nothing that is going to sink it. The law does not give the Secretary any discretion for establishing "differentials" [in price support levels] for the lower grades of tobacco. As a consequence, the poorest quality [grades] tend to accumulate in the inventories of the CCC [Commodity Credit Corporation].* This has become something of a problem. The law is written in such a way that if I lower the price of the lower quality leaves, I have to raise the price of the higher quality leaves, putting them substantially above the market price. I've discussed the matter with the industry and the leaders of Congress. The general expectation is that in 1981 there will be an amendment to the [federal] tobacco law which would authorize the widening of differentials. [This would] bring the price supports on the poorest qualities of tobacco down in the market range so those tobaccos clear the market. At some price they will sell, but at the moment, they are priced too high. This amendment would allow me to reduce [rates for] the lower quality leaves without changing [rates for] the upper quality. I expect the amendment will be carried in the Omnibus Farm Bill of 1981.**

* Many farm support programs, unlike tobacco, have to be renewed periodically. The 1981 Omnibus Farm Bill will accomplish this. Tobacco-area congressmen have traditionally avoided amending the tobacco program under an omnibus bill for fear of having the entire program abolished. Bergland was apparently considering a review of the tobacco program during the 1981 congressional deliberations.

* The unsold leaf actually accumulates in the inventories of the farmer cooperatives certified to buy tobacco not sold on the open market. The cooperatives use non-recourse loans from the CCC to finance these purchases; "non-recourse" means that if the inventories cannot be sold at a profit, the loans do not have to be repaid. See pp. 3-11 for a full explanation of the price support system.

** As of May 15, no tobacco amendments were expected to be included in the Omnibus Farm Bill.

the years. We have as strong an agriculture economy as we do because we have had tobacco programs. We've kept people on the land, we've kept the family unit together.

The tobacco program has helped to maintain the so-called family size farm in North Carolina. Without the high unit of return from tobacco, many of our smaller farms certainly would not have survived. But you're going to see the farms get larger. Corporate structures will come in. I used to think that was sort of a myth, but it's not anymore. If we don't let our farms make a profit, we're in trouble.

Do you think the family farm is threatened?

The high cost of land, high cost of insurance, high cost of taxes all make it more difficult to make a profit. That's why people are leaving the farm. I don't have all the answers. You're going to see more of a decline in farmers because it almost costs you $250,000 to get started in farming of any consequence.

What's happening to the people who aren't farming anymore?

There's been a great migration of people away from the land and into other fields of endeavor. It's going to create a stress on the industry, and if they're not properly trained they're going to have a difficult time. Generally the people that have gone to jobs in industry have not been the farmers growing tobacco. It's been the seasonal farmworker and the tenant and migrant laborer.

Do you think alternative crops to tobacco are a viable option in North Carolina?

You cannot take in as much money off of any other crop other than tobacco. There's absolutely no crop that I know of that can be grown on a large scale basis that brings in as much income as tobacco. You've got specialty crops such as strawberries, field sweet corn, squash, and other vegetables, which will bring in as much income per acre as tobacco. But North Carolina farmers will grow 360,000 acres of tobacco this year. There's no other crop that you can plant on that acreage that would have the market or would bring in as much money as tobacco.

There's been talk about tobacco as a food thing and talking about it as protein source. Well, tobacco does produce one of the highest quality plant proteins available. But it's still in its early stages of development. It's got the potential but it's too far in the future to really comment on that.

What would abolishing the support program do?

It would have major economic impact and result in some pretty substantial dislocation. It isn't like deciding upon the choice between corn and soybeans, a viable choice. It's a matter of farming or quitting.

In a competitive marketplace, without a price support program, the price would drop substantially in the beginning because there are more growers than buyers. The smaller, at least the weaker growers, would be driven out of business. As things settled down, prices would come back up again, but fewer people would be left. How many fewer, I don't think we know. But it would be substantially fewer.

Can states like North Carolina diversify their economy and absorb the great economic losses of what many predict will be a dwindling tobacco industry?

Yes. The growth in job opportunities in rural areas is the one bright spot in our whole economy. We target our rural development efforts in those kinds of places where we know that there is pressure on the agricultural base brought on by mechanization and now more recently by this smoking [and health] business. We are looking at economic alternatives, some of which are agriculturally oriented. We expect that in time the [health concerns] will reduce the demand for tobacco and that those farmers have to have an alternative. The government should provide an alternative. We are all better off if [the farmers] can stay at home and get a good job rather than [being] forced into a migrant camp some place.

Can people look past the seeming contradiction of the government spending about $53 million a year on anti-smoking efforts and over $300 million a year through USDA on the tobacco growing industry?

Strictly from a taxpayer's viewpoint, the program is a money-maker – tobacco generates $6 billion a year in tax revenues and only costs $300 million. But this is not a justification for maintaining the tobacco program. Nor should the health issue be decided on tax policy. The two must be separated. We should take the smoking issue head on and decide if we are going to ban smoking and restrict its use. Then we have to consider not only the production of tobacco, but its importation. We haven't done anything about the health issue if we simply eliminate price supports.

It's the health issue that has everyone excited. I'd like to see a vote in Congress on whether the production, sale, and importation of cigarettes should be banned or not. I know how I'd vote. I'd vote to ban.□

How has leasing become a problem?

You've got a tobacco allotment on your farm and you don't want to grow that tobacco. I want to grow that tobacco. I'll lease it from you. I have to pay you in some instances as much as 15 to 50 cents a pound for the rights to grow that tobacco. I've got the equipment, I've got the time, I've got the mechanization. I've got to have more acreage to help me pay for that mechanical harvester, to help me pay for that bulk curer, the high cost of interest, high cost of chemicals, high cost of fertilizer. I need more acreage.

There are those who think we ought to turn the quotas loose and let them grow all you want. Quotas ought to be tied to the land, just like you got a piece of property out there with an industry sitting on it. That's a part of the real estate. I think it ought to be treated that way. The value of that tobacco allotment is added to the value of the land put up for sale. And that's especially important down in eastern North Carolina.

I am for within-the-county leasing, the way it is now, but not across the county line and across the state line. I'm going to support the continuation of leasing, the way it is under the present program until something better comes along.□

Photo courtesy of N.C. State University

Dateline Raleigh

The N.C. Farm Bureau — Preserving the Status Quo

by Ferrel Guillory

"Iron triangles" – informal interlockings of special interest lobbyists, congressional committees, and executive agency bureaucrats – operate as minigovernments within the federal government. Tobacco has its own "iron triangle," and the most potent single entity on the lobbying side is the Raleigh-based North Carolina Farm Bureau Federation. For the past four years, the N.C. Farm Bureau has stood firm against major changes in the price support system sought by other farm and tobacco groups. In 1977, Congressman Walter Jones (D-N.C.), at the urging of farm bureaus in other Southeastern states, was prepared to introduce legislation to alter the tobacco price support scale. Alone, the Tar Heel Bureau opposed the legislation and, consequently, Jones dropped it. Now, the N.C. Bureau is again standing against prevailing opinion elsewhere that changes are needed. Other farm and tobacco groups, concerned over the glut of tobacco in storage under government loan and over American tobacco being priced out of world markets, have suggested changes in price support levels.

On May 1 of this year, the state bureau directors, by a unanimous vote, declined to join with the American Farm Bureau in endorsing a proposal to reduce tobacco price support increases by 50 to 65 percent. The opposition of the N.C. Bureau makes a substantial modification of support prices highly unlikely. "The North Carolina Farm Bureau generally makes tobacco policy," says an aide to a North Carolina congressman.

The Bureau's influence stems both from its broad base in North Carolina and from its access to key decision makers in Washington. Formed in 1936 in response to Depression conditions, the N.C. Farm Bureau has grown to a membership of more than 185,000, organized into chapters in all 100 counties. About 40 percent of its members have tobacco interests, but its members range from pork producers to soybean and cotton farmers. The group also offers "associate" memberships, so that about 20 percent of its members, according to Bureau estimates, are non-farmers. In addition to its lobbying, the Bureau operates a marketing service, publishes a monthly magazine, sells automobile, life, medical and farm insurance to its members, and offers them tires, batteries, antifreeze, and lawn mowers at wholesale rates. While these services undoubtedly help the bureau attract and hold members, influencing farm policy remains its major *raison d'etre.*

Since three-fourths of the nation's flue-cured tobacco is grown in North Carolina, the voices of Tar Heel farmers are naturally going to get a hearing in Washington. And since the Farm Bureau has active members among each congressman's constituents, its voice gets amplified on the second side of the triangle – the Congress. North Carolina lawmakers, to whom the Bureau has ready access, hold key positions on the committees that consider tobacco policy. Republican Jesse Helms is chairman of the Senate Agriculture Committee. Democrat Charles Rose is chairman of the House Tobacco and Peanut Subcommittee, on which Reps. Charles Whitley and Walter Jones are also members.

To complete the triangle, the Farm Bureau also deals regularly with officials of the U.S. Department of Agriculture. When Helms took Agricul-

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Since 1972, Ferrel Guillory has been a political reporter for the Raleigh News and Observer, *as the chief capitol correspondent and head of the Washington Bureau. Now associate editor, he is responsible for the editorial page.*

ture Secretary John R. Block on a visit to North Carolina shortly after Block was appointed by President Reagan, one of their stops was the N.C. Farm Bureau's Raleigh headquarters, a modern building set among dogwoods and pines above Crabtree Valley shopping center. Bureau President John Sledge works with Department of Agriculture officials closely. "We're back and forth on the phone every day," he says.

The tobacco triangle functions to some extent in Raleigh as well, largely on tax and environmental issues. The Farm Bureau lobbies in the General Assembly and negotiates with the governor and other executive agencies. "When I lobbied here [in the General Assembly] I don't think we lost a single bill we were interested in," says James D. Speed, a former Farm Bureau lobbyist who is now a state senator from Franklin County.

At the Bureau's 1980 annual meeting, President Sledge clearly enunciated the group's bias. "Our right to farm is eroded whenever government steps in to make decisions for us," he said. "Our right to farm is injured when production needs, such as chemicals, are curtailed....The right to farm is being challenged by labor unions, environmentalists, social scientists, and even some religious groups."

John Sledge, president of the N.C. Farm Bureau
Photo courtesy of N.C. Farm Bureau

Critics of Farm Bureau positions question whether the group actually represents the genuine voices of farmers. In 1969, for example, then Gov. Bob Scott, whose father helped found the Grange in North Carolina, showed up at a Farm Bureau convention and chastised its leaders for placing its own advancement first and the welfare of rank-and-file farmers second. The Bureau fired back, accusing Scott of "abusing the dignity" of his office.

Recently, *The Flue-Cured Tobacco Farmer,* an independent magazine published in Raleigh by the Harvest Publishing Co., has given a forum to farmers seeking to form a new organization of growers. "We think the Farm Bureau is doing a good job," Lenoir County farmer Kenneth Jones was quoted as saying, "but we also think the tobacco grower needs an organization that represents only him . . . . It seemed to us that the man who actually drives the tractor isn't having much of a say." Editor Chris Bickers wrote that a "real problem is developing in the fact that so many of the people have a vested interest in maintaining the *status quo* . . . . It's my observation that non-producing quota holders are disproportionately represented in some of the traditional organizations...."

Sledge says the Farm Bureau will not stand in the way of growers trying to form another organization. Any strong voice for farmers is beneficial, Sledge says, but "we've seen these groups come and go." The Farm Bureau engages in a "pretty elaborate effort . . . to go to the grass roots," says Sledge, before taking a position on an issue. "The key to our total effort is to allow farmers to speak for themselves," he says, adding that the Bureau directors are "practicing farmers."

The Bureau remains opposed to change in the price support formula, says Sledge, because the escalation in tobacco prices has not been "out of proportion to the rate of inflation in this country" and some foreign buyers want American tobacco for its quality, regardless of price. It is an "unanswered question," says Sledge, whether lower price support levels would increase trade or "take away from the farmers and give it to the companies." Sledge insists that the vote to oppose the American Farm Bureau position was in part an effort by the N.C. Bureau to retain some flexibility for the future.

Within an "iron triangle," it is often easier to exercise a veto than to bring about a change. Since it often opposes any change, the N.C. Farm Bureau is at a strategic advantage. "Walter Jones, Charles Rose, and I have a veto power (on tobacco)," explains Rep. Whitley. "I think we could prevent a substantive change we oppose." And what the Farm Bureau opposes, these congressmen are likely to oppose, too.□

The Tobacco Industry in Transition
Policies for the 1980s

Introduction. Tobacco in Transition — **William R. Finger,** North Carolina Center for Public Policy Research.

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6. Changes in the Structure of the Flue-Cured Tobacco Farm: A Compilation of Available Data Sources — **Robert Dalton.**
7. Resources on Tobacco Production and Marketing — **Robert Dalton.**

Part II. Alternatives for Tobacco Farmers:

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9. Industrial Growth: An Alternative for North Carolina's Tobacco Farmers — **J. Barlow Herget,** Data General, Inc.
10. Tobacco for Protein: A "Revolutionary Upheaval"? — **Bruce Siceloff,** *Raleigh News and Observer.*

Part III. World Leaf Sales Expand: But U.S. Share Shrinks:

11. Tobacco's Global Economy: Is North Carolina Losing? — **Joseph A. Kinney,** Committee on Agriculture, National Governor's Association.
12. Open Trade and Modernized Tobacco Program: The Keys to an Expanded U.S. Flue-Cured World Market — **Hugh C. Kiger,** Leaf Tobacco Exporters Association and Tobacco Association of America.
13. American Leaf Exports on Decline: Imperial Tobacco Company Closes Its Last American Primary-Processing Plant — **John Campbell**
14. Making the Third World Marlboro Country — **Albert Huebner.**

Part IV. Corporate Diversification and International Expansion:

15. Diversification and International Expansion: The Future of the American Tobacco Manufacturing Industry with Corporate Profiles of the "Big Six" — **James Overton,** Institute for Southern Studies.
16. R.J. Reynolds Industries: A Hundred Years of Progress in North Carolina — **J. Paul Sticht,** R.J. Reynolds Industries.
17. A Future of Great Promise — for Tobacco and for Philip Morris — **George Weissman,** Philip Morris, Inc.
18. World Tobacco: A Portrait of Corporate Power — **Frederick F. Clairmonte,** United Nations Conference on Trade and Development.
19. Labor Displacement in Tobacco Manufacturing: Some Policy Considerations — **Elizabeth Tornquist,** University of North Carolina.
20. Valuable Vehicles for Long-Term Gains — **John Maxwell,** Lehman Brothers Kuhn Loeb.

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22. Warning Citizens about the Hazards of Smoking: Where We Are in 1981 — **John M. Pinney,** Office of Smoking and Health, U.S. Public Health Service.
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25. Some Legal Aspects of the Smoking-and-Health Controversy — **J.C.B. Ehringhaus, Jr.,** The Tobacco Institute.
26. Legal and Policy Issues Concerning Smoking and Health To Be Faced in the 1980s — **Joel D. Joseph,** Federal Employees for Non-Smokers' Rights/**Marcy S. Kramer.**
27. Resources on Smoking and Health — **Harriet Kestenbaum.**

Part VI. Politics of Tobacco: Policymaking under a Cloud of Smoke:

28. The Politics of Tobacco in North Carolina: "A Load Not Easy To Be Borne" — **Ferrel Guillory,** *Raleigh News and Observer.*
29. In the Public Interest . . . Not a Constitutional Birthright: An Interview with Former U.S. Secretary of Agriculture Robert Bergland — **Blaine Harden,** *The Washington Post.*
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FROM THE CENTER OUT

The Center encourages people to voice their reactions to our projects. Below is a sampling of the letters we have received regarding the report Health Education: Incomplete Commitment *written by Center Project Director Susan Presti and the conference which we recently sponsored, "Public Policy and Native Americans in North Carolina: Issues for the '80s."*

Health Education

I found your report *Health Education: Incomplete Commitment* rather interesting and refreshing. You see, if we just change the name of the state, the report would reflect exactly what is happening in Maine. What a small world.

I would be interested in obtaining a copy of the report as a model for reporting on health education.

Sincerely,
Nany H. Stevens
School Health Education Project
Augusta, Maine

You asked for our reaction to the report. We attempted to offer help and suggestions at the time it was in draft form. Our suggestions were not received with favor. We have no particular problem with the report. It is less than completely accurate in some instances. We expressed the belief prior to publication that it generalizes on exceptions and is heavy on editorial comment that can be substantiated only through opinion. However, I believe those who read it will probably understand the limitations and probably benefit from reading it.

There is much to be done in health education. We think we have some thrusts underway that will strengthen the program. There is no question as to the commitment of the State Board and this office to that end.

Sincerely,
A. Craig Phillips
State Superintendent
of Public Instruction

In my work as a school health nursing consultant, I need ready access to it! The publication beautifully points our directions in school health education to which all concerned citizens need to subscribe. Health professionals need the report's implications pointed out to them. I feel I can help!

Sincerely,
Tina Fisher, Nursing Consultant
School Unit
Maternal and Child Health Branch
Department of Human Resources

The report, *Health Education: Incomplete Commitment,* was an outstanding piece of work. You deserve a great deal of praise for your effort. In most cases what was said is common knowledge throughout the state. However, the Center's Report accentuated the need for *real* support of health education in North Carolina. I can only hope your effort will "wake some people up," it certainly has caused a great deal of discussion around the state.

Cordially,
James A. Fitch
Coordinator
Health Education Division
University of North Carolina
at Greensboro

Indian Conference

On behalf of all Indian people in Guilford County and in North Carolina, I would like to thank you and the N.C. Center for Public Policy Research for the excellent workshop that you sponsored on Friday, April 24 in Raleigh. I have heard numerous positive comments from Indian and non-Indian participants, both panelists and moderators and workshop attendees.

I especially thank you for giving me the opportunity to serve as a panelist for the workshop on economic status of Indian people. I only wish we had had additional time for more questions and comments from the audience. I hope you are planning to share the final and overall recommendations with us.

I strongly support the idea that Indian people need strong and vocal advocates from the non-Indian communities throughout this state to support us in our efforts toward achieving our goals of social and economic self-sufficiency and self-determination. You as individuals and as an agency can be part of those advocates.

Sincerely,
Ruth L. Revels
Executive Director
Guilford Native American
Association