





# TOBACCO

*Deeply  
Rooted  
in  
America's  
Heritage*



**T**obacco is more deeply rooted in our history than any other commodity. Its role in America's settlement, early development and eventual independence is incalculable  Commerce in tobacco was the economic salvation of the struggling Jamestown colony. Export of the golden leaf to England was the dramatic beginning of trade in the New World  Thereafter, tobacco was a powerful magnet drawing new colonizing enterprises, attracting Europeans to the colonies and creating the basis for a mighty nation and a far-flung industry. Tobacco founded communities, extended the boundaries of the original colonies, drew settlers to the "new west" of Kentucky, Tennessee, Ohio and Missouri, supported schools and churches, paid for roads . . . helped build America  Even after the nation passed through its early growing pains, tobacco remained a constructive element. It has maintained its place as a dynamic force in our national economy. It has touched in one way or another over 400 years on almost every aspect of human life—religion, education, agricultural advancement, politics and the arts—and no doubt will continue to do so for another 400 years  In these pages will be found a summary of a long, complex and fascinating record: the growth of tobacco agriculture, manufacture and commerce in the United States, from John Rolfe's experimental crop of 1612 to the present day.





*Sir Walter Raleigh brought the smoking custom to Elizabethan court circles and learned to plant and cure the leaf on his estate. Ordered beheaded by James I in 1618, he reportedly had one last smoke before going to the block*

*John Rolfe*



*1587 illustration shows tobacco under cultivation in an American Indian village*



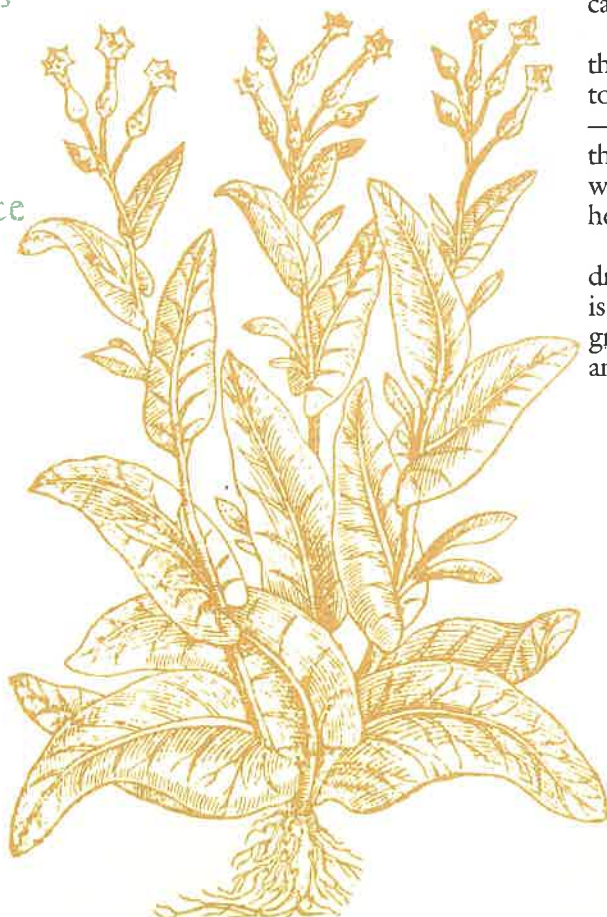
## TOBACCO

America's

First

Great

Commerce



**T**obacco grows in many countries, but the United States has been the major source of the finest leaf since shortly after England's first permanent settlement here in 1607. It is a tribute to the quality of the tobacco grown in America that worldwide it

remains the most desirable for cigarettes, smoking and chewing tobacco and snuff.

About 14 percent of the world production comes from the United States. Nearly two dozen states contribute, in the South Atlantic, Eastern, Central and New England regions. Generally, tobacco ranks fifth in overall value of all cash crops grown by American farmers.

Domestic consumers represent by far the largest market for American grown tobacco. Yet so much of it goes abroad — about one-third of the annual crop — that the United States is now the world's largest exporter and has long held that position.

No product of the field has had so dramatic a history as tobacco. Its record is intimately related to the founding and growth of most of the original colonies and to the first states to enter the Union.





Colonial tobacco plantations



The Continental Congress, whose credit was supported by a French loan on tobacco leaf, arranged by Ben Franklin

CAPITAL HISTORICAL SOCIETY, WASHINGTON, D. C.

When Christopher Columbus arrived in the New World in 1492, he saw natives using tobacco in ways we do today—for smoking and chewing and as snuff. The Indians' cultivation of the golden leaf incorporated most of the steps deemed essential today, including topping and suckering and the various curing processes.

By the 16th century the leaf had found its way across the Atlantic to the European continent, where it was touted as a remedy for all that ailed the human body. Samples of the plant crossed the English Channel to Britain where, bolstered by praise from the survivors of the first Roanoke Island settlement and encouragement from Sir Walter Raleigh, the pipe became an institution.

America's commercial involvement with tobacco began more than 350 years ago when a young Englishman named John Rolfe is said to have acquired seed from the Spanish colonies of Trinidad and Caracas.

The tobacco early settlers found growing near the settlement they named for England's James I in 1607 was a strong leaf known today as *Nicotiana rustica*, described by the colonists as "poore and weake, and of a byting tast."

In 1612, just two years after his arrival in Jamestown, Rolfe planted the first crop of *Nicotiana tabacum*, the milder Spanish leaf introduced earlier in Europe. In the words of one prominent

tobacco historian, "never was a marriage of soil and seed more fruitful."

Four times in the preceding quarter-century Britain had tried to establish settlements in the New World. Jamestown, the fifth attempt, was close to failure when Rolfe began his experiment.

The fruits of Rolfe's labors were unlike tobacco as we know it today. Although far superior in quality to the native leaf, the heavy, strong product would most closely resemble the coarsest, darkest type of chewing tobacco now sold.

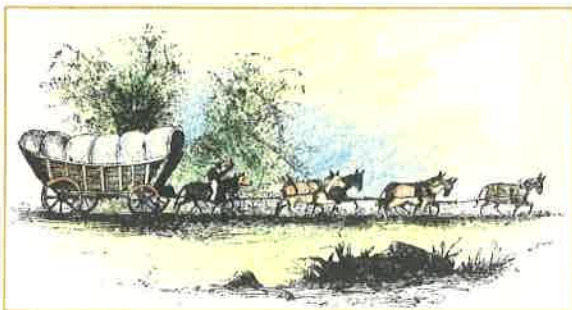
The first shipment from Rolfe's farm went to England in 1613. Although only a few hundred pounds, it was recognized by London merchants immediately for its possibilities. They demanded more. At the same time, the settlers saw that exporting tobacco was perhaps the one way to ensure the survival of their colony. No other commodity could finance the shipment of essential goods from home.

Rolfe, whose 1614 marriage to Pocahontas was to bring him more fame than his agronomy, returned from a 1616 promotional trip to England to find tobacco literally being grown in the streets. As settlers hastened to plant leaf in every available bit of ground, Jamestown's deputy governor had to order that no man could raise tobacco unless





*Conveying tobacco  
to Virginia warehouses*



LIBRARY OF CONGRESS

he also “manured and maintained” two acres of corn.

The demand in England grew. In 1615-1616, 2,300 pounds of the golden leaf made the journey from Jamestown, three years later, 20,000 pounds, and in 1620, 40,000 pounds.

As more colonists reached the New World, cultivation of tobacco spread. At one time or another, every colony along the Atlantic seaboard grew the leaf. However, Virginia and Maryland remained the agricultural center.

#### **Tobacco Spreads**

The tobacco economy of colonial times provided the impetus for settlers to move north, south and west in search of virgin lands. With fertilization and crop rotation techniques unknown, farmers tended to use the soil until it was exhausted, then move on to clear and plant anew.

What is now Delaware was the first North American colony founded expressly to produce export tobacco. Although that project failed because of Indian hostility, George Calvert, the first Lord Baltimore, asked for and received a grant for land

along the Chesapeake Bay where he could “do the King and my Country more service” by planting tobacco. His Maryland colony was established in 1634.

By the 1650s planters were beginning to amass the large, self-sustaining plantations that would encourage the widespread use of Negro slavery. Virginians moved into the Albemarle area of Carolina in search of better soil for tobacco; other settlers extended the borders of the Old Dominion into the Piedmont and Blue Ridge districts.

As the 18th century came to a close, restless planters were crossing into what is now Tennessee and Kentucky, Ohio and farther west, to make permanent settlements in new lands where they could grow tobacco.

#### **Seeds of Revolution**

From John Rolfe’s first shipment in 1613 the British saw the trade—and tax revenue—potential of America’s new crop. Attempts by



*Smokers' Circle,  
Boston Common*



*Rolling  
tobacco*



*A familiar  
scene in  
the tobacco  
colonies:  
hogsheads  
of leaf  
awaiting  
overseas  
shipment*



the colonists to establish their own markets were discouraged when the Crown declared tobacco a royal monopoly, ordered an end to tobacco growing in England (even Raleigh had grown it on his estate in Ireland), cut off tobacco imports from Spain, and decreed that all American tobacco must be shipped to British ports and customs duties paid to the King.

Although the canny colonists were successful in smuggling some shipments of leaf to other countries, the Crown gradually strengthened its hold on American exports with a series of Navigation Acts. Some historians see in these restraints on the commerce of tobacco the seeds of the American Revolution.

British efforts to control tobacco trade also resulted in the first attempts to limit production, forerunners of today's price support program. Just three decades after Rolfe's first crop, London warehouses were choked with leaf. Prices dropped and planters, desperate to reduce the amount of tobacco available, burned half their crops. In later years, Virginia's colonial government would try to limit the number of plants set out, suspend all trade in tobacco, and close ports to "foreign" (i.e. North Carolina) leaf. Finally, enraged planters came up with their own crop control—in 1690 they rioted and destroyed almost a million pounds of leaf.

Eventually, Virginia was able to come up with effective control measures. Es-

tablishment in 1713 of the first inspection warehouses cut off the export of "trash" tobacco. A 1730 inspection act authorized "tobacco notes" that certified leaf suitable for export and ordered any leaf found inferior to be burned. Maryland followed suit in 1747.

#### **Tobacco as Currency**

With quality control, the tobacco notes began to take the place of currency. The old custom of using the leaf itself as barter continued to some extent, but the notes represented a more stable mode of exchange because quality was standardized.

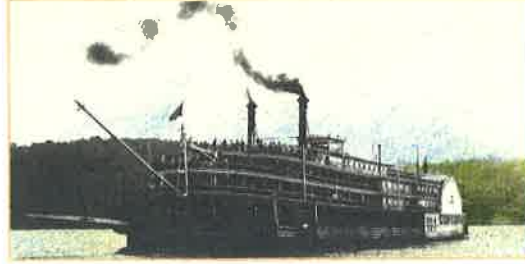
Quantities of tobacco had earlier been used to secure the passage of wives for the lonely men of Jamestown and to pay the salaries of clergy who married and buried them. A one penny tax on tobacco provided the earliest funding for the College of William and Mary. Tobacco even played a major role in the colonies' fight for independence, serving as collateral for loans to the colonists from France to finance the American Revolution.



Stripping  
and sampling  
tobacco leaf

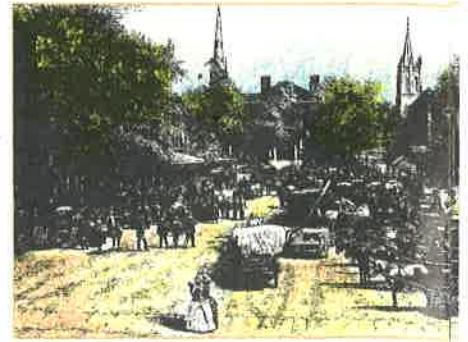


1875 tobacco salesman  
works the New York  
territory



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Steamboats like the  
Cincinnati carried tobacco  
to manufacturers  
throughout the nation



Lexington,  
Kentucky's  
largest tobacco  
town, 1889

## TOBACCO Freedom to Manufacture

**U**nder British rule, most American-grown leaf was shipped to England for manufacture. A few small factories had appeared in the colonies during the mid-1700s, although British trade laws prevented them from flourishing. One of the first American snuff factories was built in Rhode Island around 1750 by a Scottish immigrant, Gilbert Stuart, whose son would become the artist famed for his George and Martha Washington portraits.

Once the colonies gained their independence, small factories began to spring up. By 1790, 29 million pounds of tobacco were processed annually into rolls or twists, which merchants hand cut for chewing or smoking or grated for snuff.

By James Monroe's second inaugural in 1821, manufacturing was well under way in the new nation. Most major factories were concentrated near leaf markets of tobacco-producing districts. Principal centers were Richmond, Petersburg, Lynchburg and Danville, in Virginia, and New York City and Philadelphia.

More than half the workers in these factories of the mid-1800s were black slaves hired on an annual basis from their owners. Because outright purchase of such slaves called for a cash outlay not practical for the manufacturers, they contracted for the slaves, who were paid cash bonuses for work done

beyond established minimums. For many slaves, this amounted to several dollars a week and made factory work more desirable than field work.

### Marketing and Auction Centers Grow

The warehouse auction system of selling tobacco was developed in the early 1800s, following the breakdown of the colonial method of exchanging hogshead for tobacco note, which was nothing more than a certificate of weight.

By then, manufacturers were beginning to realize that differences in leaf quality affected the finished product. Buyers became more careful about what they bought.

The new system began around 1810 in Lynchburg, where hogsheads were brought to an auction warehouse and broken open for inspection by the buyers. Farmers were encouraged to sell



*Louisville, Kentucky,  
tobacco auction*



their tobacco on the spot; to wait another day meant going through the process of breaking open the hogshead again.

Breaking hogsheads proved cumbersome for farmers as well as buyers and by the 1830s growers living near auction centers were bringing their tobacco to the sales floor unpacked. These "loose leaf" auctions were officially sanctioned in Virginia in 1849; they were made even more popular when the farmers began tying their tobacco in "hands" or small bundles.

### Post-War Boom

No tobacco state was among the Confederate States of America, formed in Montgomery, Alabama, in 1861. The original Confederacy was the cotton kingdom; the tobacco kingdom was at that moment making 11th hour efforts to preserve the Union. Even after Fort Sumter was fired upon, the tobacco states were unable to agree on a united course of action. Virginia, North Carolina and Tennessee finally sided with the Confederacy; Maryland, Kentucky and Missouri stayed with the Union.

Although tobacco had since the Revolution been an important morale-booster for American soldiers, the war between North and South marked the first time a government recognized the leaf's unique position. Toward the end, the Confederacy decreed that regular tobacco rations be issued to its soldiers. Meanwhile, the federal government began taxing tobacco products.

It was also at about this time that the

two main types of tobacco used in today's cigarettes first appeared. Bright, or flue-cured, tobacco was the result of a new curing technique and the switch in culture from the heavy, rich soils of Virginia to the sandy loams of the North Carolina Piedmont.

The bright boom came once the war ended, the Census Bureau describing the expansion as "one of the most abnormal developments in agriculture the world has ever known." Because the highly prized leaf grew best in soils once classified as incredibly poor, counties began to argue with one another as to which had the poorer land.

The first major use for the new, finer textured tobacco was as wrapper for chewing and smoking tobacco plugs, but its mildness soon prompted its use as a smoking tobacco.

Today's burley tobacco was discovered in 1864 as a plant mutation on an Ohio farm. Its highly absorptive properties put it in great demand as a plug filler, as it could soak up tremendous quantities of sweeteners and sauces. Cultivation of the new leaf spread rapidly into districts that had previously grown darker, heavier tobaccos, and changes in growing techniques gradually produced an even milder leaf.

### Up and Coming Cigarettes

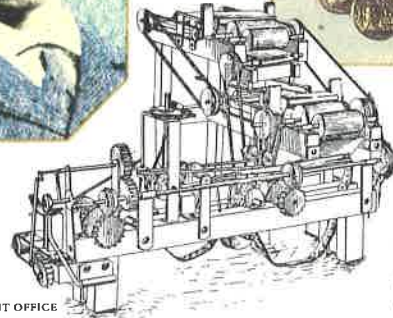
Cigarettes had been available in American cities since the mid-1800s, but for most of the 19th century tobacco users stuck to chewing, dipping snuff or smoking cigars or pipes. Although





NATIONAL ARCHIVES

More than a year after the process began, the tobacco farmer gets his payoff, a check for the sale of his tobacco on an Upper Marlboro, Md., auction floor



U.S. PATENT OFFICE

James Bonsack's cigarette making machine could produce up to 120,000 cigarettes a day, the equivalent of 40 hand rollers working 12½ hours



domestic production of the cigarette began in the north after the war and quickly spread south, by 1880 total U.S. production was only about a half billion annually.

Cigarette smoking, originally a Central American custom, was observed in New Mexico by the trappers and traders who opened the Santa Fe trail early in the 19th century. But the cigarette's arrival in New York can be traced to Seville, Spain, the world's first tobacco manufacturing capital.

There, cigarettes were poor men's cigars—scraps of discarded cigar butt wrapped in scraps of paper. Still, it was not until the Crimean War in 1854-56, when French and Turkish soldiers found cigarettes more readily available than the more popular pipes and cigars, that the Western world began to demand them.

The first American cigarettes were often blends of expensive Turkish leaf and less costly bright. However, the first

product to gain any real popularity was the Virginia cigarette—made only of bright leaf.

The skill needed to roll shredded tobacco into a compact cylinder and seal it properly prevented the cigarette trade from expanding as much as it would have. Even at highest speed, the well-trained cigarette maker could produce only four per minute.

Then a young Virginian named James Bonsack patented the first cigarette-making machine in 1881. It could produce up to 120,000 a day, equivalent to the output of 40 hand-rollers.

The American cigarette as we know it appeared in 1913. Previously, the public favored either straight Turkish or blended cigarettes with a pronounced Turkish flavor. The most popular sold for 15 cents for a pack of 20.

The new blended cigarette was primarily flue-cured, with a seasoning of Turkish and some cased, or sweetened, burley. The latter was prepared as if for use in plug tobacco, quite different from the burley previously used in cigarettes. The new product—and its price of 10 cents for a pack of 20—revolutionized the cigarette industry.

Per capita consumption, at 108 in 1911, jumped to 166 in 1914 and to 248 in 1916. World War I provided even greater stimulus for factory-made as well as roll-your-own brands. In 1917, per capita consumption was 337; by 1919, 426. The Young Men's Christian Association sold



Cigar Rollers

CULVER PICTURES, INC.



Gen. Douglas MacArthur, with his corn-cob pipe, was a familiar sight to soldiers everywhere



CULVER PICTURES, INC.

more than \$12 million worth of tobacco products to U.S. doughboys in its overseas post exchanges.

#### Increased Demand . . . and Taxes

The growing popularity of cigarettes would result in decreased use of other tobacco products. The Depression and shortages of World War II helped revive sales somewhat, but the cigarette was clearly the tobacco product of the future. Even when they had little money, Depression smokers found a way to purchase their cigarettes. A man in McClellanville, South Carolina, for instance, gave a storekeeper an egg in exchange for a single cigarette.

The cigarette shortage during World War II prompted from a Harvard anthropologist this explanation of the sudden jump in popularity of the pipe among those at home.

*The boys are in the foxholes, with their lives endangered, are nervous and miserable, and want girls. Since they can't have them, they smoke cigarettes. The girls at home, with their virtue not endangered, are nervous and miserable and want boys. Since they can't have them, they too smoke cigarettes. So what happens? The briar pipe resumes its rightful place as the companion of the philosophic male. . . .*

In 1942, Secretary of the Interior Harold Ickes ordered all rubber mats removed from beneath Congressional cuspidors, as part of the wartime campaign to conserve rubber. The cus-

pidors, however, have remained in place to this day, the brown pottery replacing the more traditional brass.

Chewing tobacco decreased in popularity, but American consumption of other tobacco products, particularly cigarettes, increased by leaps and bounds. Federal and state governments quickly saw tobacco as a means to eliminate deficits in their treasuries.

The federal government had levied its first excise on tobacco, a short-lived tax on snuff, in 1794. Tobacco excises as we know them today began as a war measure in 1862. In the early years they brought in only about \$30 million annually. Federal receipts grew to about \$80 million by 1915, \$450 million in 1930, \$698 million in 1941, over \$1 billion in 1946, and over \$2 billion in 1962.

Iowa was the first state to tax tobacco products, in 1921. By 1930, 11 others had followed, and by 1940 the total had reached 27. By 1970, all 50 states and the District of Columbia were adding to general revenues with excises on cigarettes, other tobacco products, or both.

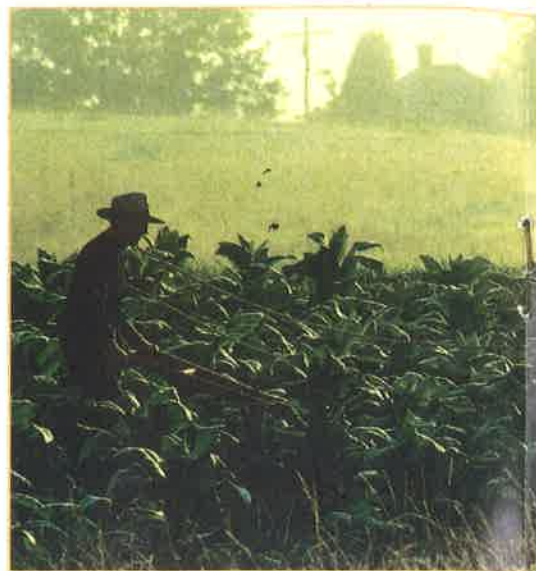




PAMELA BAREFOOT PHOTOS



U.S. DEPARTMENT OF AGRICULTURE



## TOBACCO

### The Productive Farms

**T**obacco is one of the most difficult, and most labor-intensive, crops to produce. Field management alone requires that farmers put in an average 250 hours for each acre harvested. In comparison, harvesting an acre of wheat takes about three man-hours.

The yield of tobacco of all types from American farms is about 2 billion pounds annually. The U.S. Department of Agriculture (USDA) divides tobacco types into seven classes: three based on the method of curing used; three, all cigar leaf types, based on principal use; and one miscellaneous.

Long foremost in volume and money value is flue-cured (bright) leaf, which is grown in six states—Virginia, North Carolina, South Carolina, Georgia, Florida and Alabama. For many years the chief source of flue-cured leaf, the major ingredient in blended cigarettes with other uses in smoking and chewing tobaccos, has been North Carolina.

Burley, also an important ingredient in blended cigarettes and in smoking and chewing tobaccos, is the most widely grown. It is cultivated in 14 states, with Kentucky producing the largest quantity. Other major producers include Tennessee, Ohio, Indiana, Virginia, North Carolina, West Virginia and Missouri. Smaller quantities are grown in Alabama, Arkansas, Georgia,

Illinois, Kansas, and South Carolina. Other tobacco types include fire-cured, grown in Kentucky, Tennessee and Virginia and used in snuff, chewing tobacco and strong cigars; Maryland air-cured, used in cigarettes and as cigar filler; and dark air-cured, grown in Indiana, Kentucky, Virginia and Tennessee and used in chewing and smoking tobaccos, snuff and as cigar filler.

The three cigar tobacco types—filler, binder and wrapper—are produced in Pennsylvania, Ohio, Connecticut, Massachusetts, Wisconsin and Puerto Rico. They also are frequently used in chewing tobacco.

The most important of the “miscellaneous” types is perique. Cultivated by only few families in St. James Parish, Louisiana, this unique leaf is noted for its pleasing aroma. Small quantities are used in the manufacture of fancy smoking tobaccos around the world.

#### Cultivation

The various types of tobacco are grown in well defined locations where the soil and climate yield a product with







properties most desired by manufacturers and exporters. Growing and handling methods also are dictated by the kind of leaf manufacturers want.

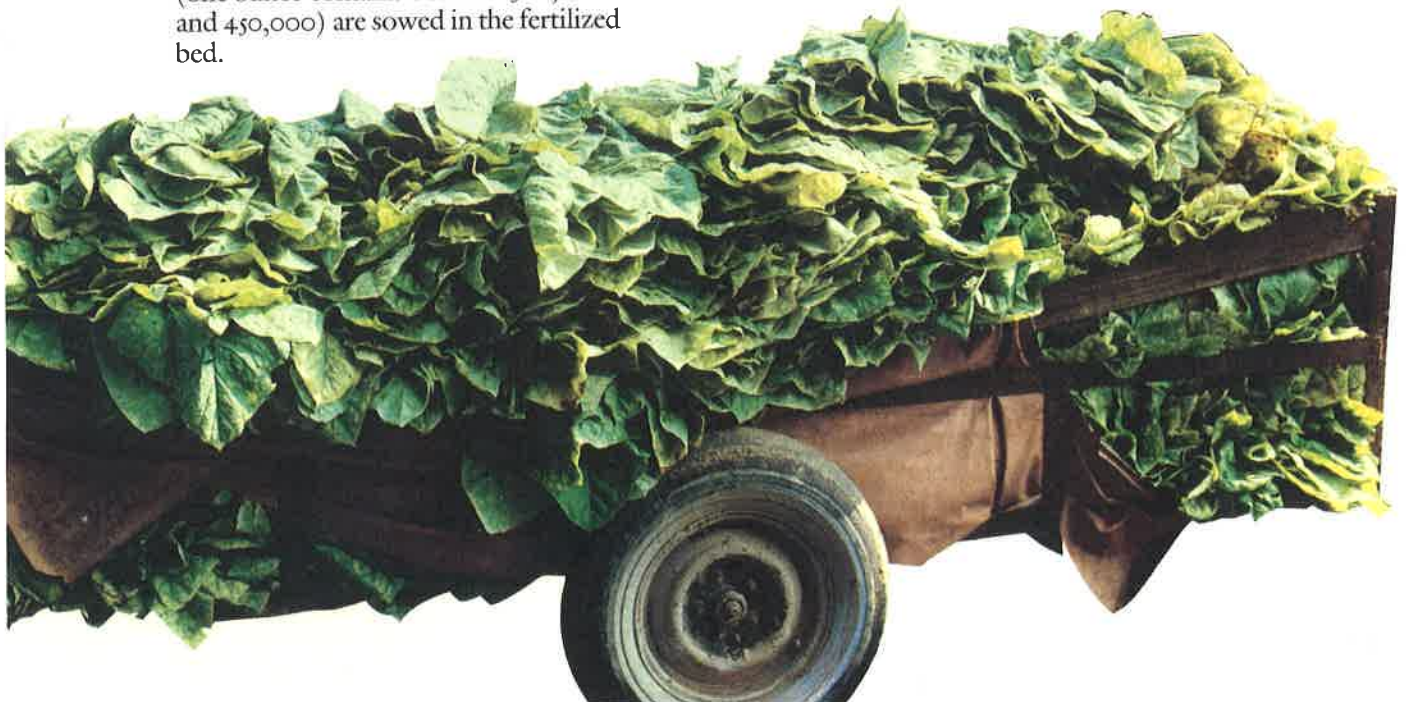
Currently, USDA classifies more than half a million farm families in the United States and Puerto Rico as tobacco growers. USDA estimates that employment swells to about 3 million at the height of the growing and harvesting seasons, when additional part-time workers are needed.

Cultivation begins with selection by the farmer of a site for his plant bed, 50 to 100 square yards for each acre of tobacco he hopes to harvest. Here he will nurture the seedlings for later transplant to the field. The tiny seeds (one ounce contains between 300,000 and 450,000) are sowed in the fertilized bed.

When the soil is warm enough—mid-March in the southern states, May or June further north—the seedlings are moved to the field and planted in rows 3 to 4 feet apart. This will yield 5,000 to 11,000 plants per acre, depending on the type grown.

Tobacco is cultivated much like other row crops. The farmer's primary responsibility is to keep the soil loose, well drained and aired, and to eliminate weeds and grasses and, of course, insects and plant diseases.

When blossoms first appear, the plant is "topped" by breaking or cutting off the top portion, including the newest young leaves. This allows those remain-







**Tobacco Producing Areas**

- |  |   |
|--|---|
| <span style="display: inline-block; width: 10px; height: 10px; background-color: yellow; border: 1px solid black;"></span> Flue-cured types          | <span style="display: inline-block; width: 10px; height: 10px; background-color: red; border: 1px solid black;"></span> Virginia sun-cured      |
| <span style="display: inline-block; width: 10px; height: 10px; background-color: blue; border: 1px solid black;"></span> Fire-cured types            | <span style="display: inline-block; width: 10px; height: 10px; background-color: green; border: 1px solid black;"></span> Cigar types           |
| <span style="display: inline-block; width: 10px; height: 10px; background-color: lightblue; border: 1px solid black;"></span> Light air-cured types* | <span style="display: inline-block; width: 10px; height: 10px; background-color: darkgreen; border: 1px solid black;"></span> Louisiana perique |
| <span style="display: inline-block; width: 10px; height: 10px; background-color: darkred; border: 1px solid black;"></span> Dark air-cured types     |   |



PAMELA BAILEY/FOOT PHOTOS



ing to utilize the plant's nutrients to become larger, thicker and heavier. When the flower is removed, lateral buds, or "suckers," develop in the leaf axils. These will reduce the size of the other leaves if not removed, either by hand or with chemical controls.

#### Harvesting and Curing

The crop is mature 60 to 90 days after transplanting. Then it is harvested by one of two methods: by "priming," in which the leaves are picked individually from the plant as they ripen; or by "stalk-cutting," in which the entire plant is cut. The former is used for flue-cured, cigar wrapper and Puerto Rican filler tobacco, the latter for all other domestic leaf.

Much of the success in producing the quality tobacco for which America has become famous depends on harvesting at just the right stage of maturity—neither too ripe nor too green. It takes an experienced eye, gained over long years, to recognize the proper moment.

The harvesting of most tobaccos remains primarily a hand-labor process, although mechanical harvesters have become increasingly popular in the flue-cured belts.

The first step in preparing harvested tobacco for market is curing. Three basic methods are used to dry the leaves and each involves its own traditional type of curing barn. In air-curing, the tobacco is cured under natural weather conditions, although supplementary heat may be used. Burley, Maryland, dark-air and cigar tobaccos all are air-cured. Flue-curing uses heated air, at gradually increasing temperatures, with





U.S. DEPARTMENT OF AGRICULTURE



no exposure to smoke odor. In fire-curing, smoke from wood fires surrounds the leaf, much as in curing hams or fish.

### To Market, To Market

When fully cured, the leaf is too dry and brittle to be handled without crumbling. However, tobacco leaves readily absorb moisture from the warm, humid air common during "tobacco season." When it is soft and pliable enough to be handled without breaking, the leaf is said to be "in case" or "in order" and ready for delivery to market.

About 96 percent of U.S. tobacco is marketed at colorful auctions where the leaf is displayed in individual lots. These auctions are the sole "payday" for most farmers. The remaining four percent of U.S. tobacco, primarily cigar leaf, is sold either directly on the farms or through farmer-owned cooperatives.

To the uninitiated, a tobacco auction is a hodgepodge of uncoordinated sights and sounds. Despite the noise and swift-paced movement, however, floor procedures are orderly and efficient. Along the rows of baskets of weighed and graded leaf, buyers for domestic and foreign manufacturers, leaf brokers and small dealers follow the warehouseman (now a selling agent for the farmers) and the auctioneer. The latter, chanting a sing-song of numbers that buyers and sellers readily understand, takes only six to 10 seconds to run through the bids for each basket. A thousand pounds can be disposed of in five minutes or less.

The farmer makes the final decision on the sale of his leaf. He may reject the price bid for any lot by "turning" the ticket—folding it, tearing off a portion, or otherwise marking it. Such lots are then either put back in line for later sale on the same floor or taken to another warehouse or market.

As part of a federal program begun during the Great Depression to stabilize agricultural commodities, most tobacco grown in the U.S. today falls under price support and production control legislation.

Under this program, a majority of growers agree via referendum to accept USDA-set acreage and marketing quotas. In return for the restrictions, the growers are guaranteed a minimum price per pound of tobacco. If leaf offered by the farmer is unsold at the government-pegged minimum price, and if the farmer has not exceeded his production quota, he receives instead a government loan equal to the minimum price. The tobacco is then taken as collateral by a cooperative funded by government, to be sold later when market conditions are more favorable.





PAMELA BAREFOOT

*The tobacco leaf sold at the colorful auction markets is not immediately suitable for manufacture. First, it must be processed, stored and aged to bring the leaf to peak flavor. After its two to three-year "sleep," it is moved to factories where high speed machinery contributes to production of up to 70 cigarettes a second*



PAMELA BAREFOOT



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## TOBACCO

### Processing Storage and Aging

Except for Louisiana's perique, which is pressure-packed in reinforced barrels for two years by its Cajun growers, tobacco as sold by the farmer is not immediately suitable for manufacture. It must be processed, stored and aged to bring the leaf to peak aroma and flavor.

The Bureau of Alcohol, Tobacco and Firearms (BATF) of the U.S. Treasury Department licenses the processing plants. They are concentrated in North Carolina, Virginia, Kentucky and Pennsylvania.

Tobacco is usually marketed with a moisture content that would not permit it to be stored without deteriorating, and this moisture level must be reduced evenly in preparation for its long sleep. The typical redrying machine first removes moisture with heated air, then cools the leaf and adds a controlled and uniform amount of moisture. Once the redrying process is complete, about 15 to 30 minutes after it begins, the tobacco is placed in containers for storage or export.

Most tobacco is still aged in hogsheds much like those of colonial times, in which the leaf would literally be rolled to port. The round wooden containers of today are about 4 feet in diameter and 4 feet high and usually weigh between 950 and 1,200 pounds, depending on the tobacco type and the packing method. Some processors have switched to smaller wooden or

cardboard cases that hold about 450 pounds. These cases are increasing in popularity because of their ease in handling. Also, the rectangular shape saves space and lends itself to automated loading and shipping systems.

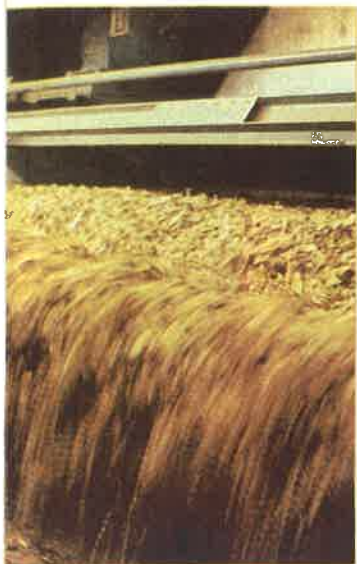
During its two to three year sleep in storage, tobacco undergoes a series of delicate, natural "sweats" that give it mellowness. Although the industry is experimenting with ways to speed the aging process, nature's slow pace remains the favored one.

Cigar leaf tobaccos are not redried, but are taken directly from the curing barns to packing houses and packed tightly together to undergo fermentation. As is the case with any tightly packed vegetable matter, the center of the "bulk" becomes hot and the leaves begin to deteriorate. Every few days the bulk is dismantled and rebuilt until all leaves have been placed in the center.

The leaves are then further sorted, sized and packed into bales for cool storage. The fermentation process, which reduces the nicotine and moisture content of the leaf and gives the tobacco a more uniform color, continues during the storage period, although at a much slower pace.

### Manufacturing

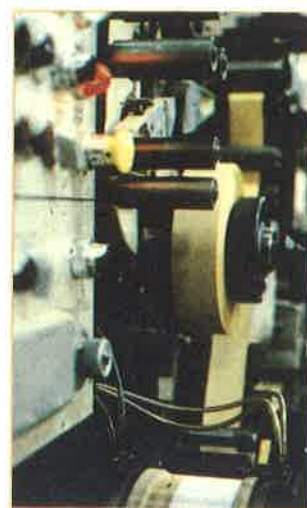
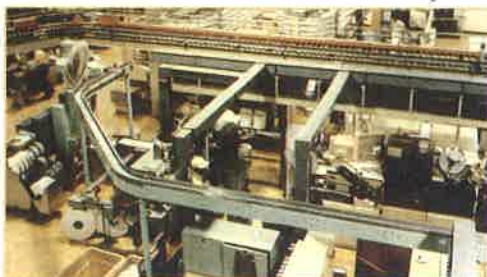
Ready for manufacture, the leaf is moved to factories by rail or truck, most often the latter. BATF has licensed factories in 21 states to manufacture tobacco products. They are concentrated in the Southeast and Mid-Atlantic



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states. North Carolina, Virginia, Kentucky and Georgia have the cigarette factories; Kentucky, Tennessee and Pennsylvania, the chewing, pipe, roll-your-own tobacco and snuff factories; Pennsylvania, Florida and Alabama, the cigar plants.

Another nine establishments—in New York, New Jersey, Virginia, North Carolina, Tennessee and Kentucky—hold federal permits to manufacture cigarette paper and tubes.

According to the Bureau of Labor Statistics, the manufacturing industry employs more than 65,000 persons with a payroll of hundreds of millions of dollars. Cigarettes alone account for

more than two-thirds of all tobacco manufacturing employment.

High-speed machinery today produces up to 70 cigarettes, of assured uniform quality, a second. Tobacco and paper are formed into a continuous rod that is sealed lengthwise and cut into individual cigarettes. Filters are attached before the finished product is fed into an inspection device that monitors density, weight, length and circumference. Then the cigarettes go to the packing machine, where they are packaged and wrapped.

Mechanization of the cigar industry has meant production of up to 900 large cigars or 60,000 tipped cigarillos an hour. A few of the higher priced cigars, however, are still hand made, using no form or mold.

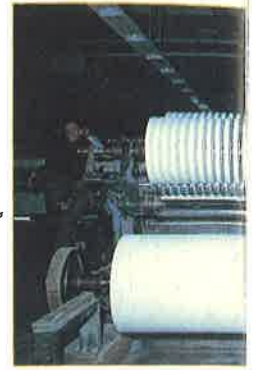
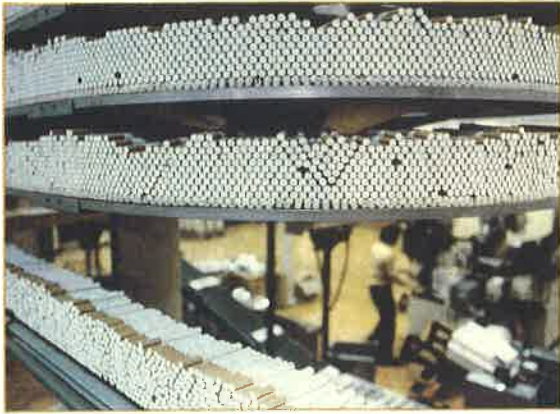
### The Supply Network

Every state in the union has a stake in the tobacco industry, considering the vast network of material, equipment and service suppliers involved between seed and sale.

Farmers need machinery, insecticides, fertilizer, plant bed cover material, irrigation equipment and burlap to cultivate and harvest their crops. Manufacturers depend on outside suppliers for paper, containers, filter material and rods, foil, cellophane, flavorings, energy, insurance, transportation, advertising, promotion and media. Providing these goods and services gives employment to millions of Americans and adds hundreds of millions of dollars annually







to the income of business firms not usually thought of in connection with tobacco.

Major sources for farm machinery are Michigan, Indiana, Illinois and Iowa; for pesticides and fertilizers, Texas, Utah, Tennessee, New Jersey, Arkansas, Delaware, New Mexico and Florida; for plant bed cover material, Missouri and New Jersey; for irrigation equipment, the states west of the Mississippi River; and for burlap, Minnesota.

Industries and facilities supplying tobacco manufacturers are based in 22 states in the Northeast, Southeast and Midwest, California and Texas. North Carolina, Virginia, Tennessee and New Jersey provide about 80 percent of that support. Not surprisingly, the chief suppliers of energy are in North Carolina, Kentucky, Virginia and Georgia.

Cigarette packaging offers an indication of the extent of the industry's annual requirements. This single step in manufacturing uses millions of pounds of aluminum foil and moisture-proof cellophane, billions of printed labels (in as many as 24 different languages) and cardboard boxes, billions of zip tapes and package closures, and billions of printed carbon blanks and printed shipping containers.

#### The Chain of Distribution

Consumer demand for tobacco products remains high. Annual purchases amount to:

- more than 600 billion cigarettes —

with additional quantities going to our overseas forces

- more than 5 billion cigars and cigarillos
- about 34 million pounds of pipe and roll-your-own tobacco
- more than 88 million pounds of chewing tobacco and about 44 million pounds of snuff

The retail prices paid by consumers for tobacco products total more than \$25 billion, including excise taxes of more than \$10 billion a year. Cigarette purchases of extra-long, king-size and regular, filter-tip and mentholated brands amount to more than \$23 billion.

To maintain an uninterrupted flow of tobacco products from factories to domestic retail outlets, distribution is made through the country by all means of transportation, chiefly truck and freight car, occasionally plane or ship. These services require a large labor force. The swift, efficient delivery of factory-fresh cigarettes





alone, bought at the rate of 1.7 billion every day, is a triumph of marketing logistics.

The general industry pattern is to deposit packaged goods in warehouses that serve all manufacturers. These warehouses are in the country's most active marketing centers—chiefly in New York, California, Texas, Pennsylvania and Illinois. From them, delivery is made to the more than 2,500 primary and miscellaneous wholesalers who distribute tobacco products.

The wholesalers deliver tobacco merchandise to some 1.1 million retail outlets, including independent food stores, supermarket chains, drugstores, restaurants and other outlets, as well as to the operators of nearly 750,000 vending machines.

### Exports and Imports

Major cigarette manufacturers may receive daily up to 2,000 individual orders, most of which are shipped within 24 hours with use of computerized order transmission systems.

There are more than 200 brands of cigarettes on today's domestic market. More than half sell one billion or more annually. Cigars, in varying shapes and sizes, are available under hundreds of labels. A generous variety of other tobacco products also can be found on the shelves of thousands of stores, from chain store to neighborhood grocer.

Tobacco is consumed in every nation in the world. It is grown in every coun-

try in which the soil has proved suitable. The U.S., producing about 2 billion pounds annually, accounts for roughly one-seventh of the total world production of more than 14.5 billion pounds.

About one-third of U.S.-grown leaf is exported. The federal government has issued permits to warehouses in 32 states to export tobacco and tobacco products. These are concentrated near major port cities throughout the nation, the largest numbers in Texas, California, Florida, New York, Maine and Washington.

Flue-cured tobacco accounts for most of the U.S. export of unmanufactured leaf. Exports of cigarettes are valued at more than \$1.2 billion annually; of cigars and cheroots, \$10.5 million; of pipe and roll-your-own tobacco, \$32.4 million; and of snuff and chewing tobacco, \$5.9 million.

European Common Market countries buy the most U.S. tobacco exports. Japan is the largest individual importer. Other major importers are Australia, Egypt, the Philippines, Spain, Sweden, Switzerland and Thailand.

The world's largest importer, the U.S. buys more than a half billion dollar's worth of tobacco products abroad annually. Chief among them are Greek and Turkish tobaccos, used in blended cigarettes; millions of foreign cigarettes, cigars and cheroots and millions of pounds of smoking and chewing tobacco and snuff.





PAMELA BAREFOOT PHOTOS



*Excise and sales taxes on cigarettes and other tobacco products pump billions of dollars into federal, state and local treasuries annually*

## TOBACCO

### The Tax Yield

**R**etail trade in tobacco products—a major segment of the nation's economy—has long been an important source of revenue for federal, state and municipal governments. These treasuries derive a substantial yield from taxes generated by the sellers and their employees. But the largest contribution is from excises on the tobacco products themselves.

The federal excises on cigarettes and other tobacco products are now more than a century old. Total tax collections have more than quadrupled since 1940; all told, more than \$96 billion has been paid into the U.S. Treasury by American smokers since 1862. More than \$75.9 billion has been collected by the states since 1921, when Iowa imposed the first state tax.

Today, the tax on manufactured tobacco—primarily from cigarettes—brings more than \$4.7 billion annually to the U.S. Treasury, a total exceeded only by excise tax collections from gasoline. By percent of retail price, tobacco is the most heavily taxed of any consumer product.

This separate levy on cigarettes (and, in many states, on other tobacco products as well) by all 50 states and the District of Columbia produces another \$4.3 billion every year. Hundreds of counties and municipalities receive almost \$180 million in tobacco excises. Ninety-nine percent of this considerable total of taxes on all tobacco products

is paid by the estimated 55 million Americans who smoke cigarettes.

### America's Golden Leaf

Excise taxes aren't the only revenue produced by the tobacco industry. In 1985, Chase Econometrics studied the U.S. tobacco industry to determine its impact on America's economy.

The study showed that in 1983, expenditures for tobacco accounted for \$31.5 billion of the U.S. Gross National Product, and 710,000 jobs in tobacco's core sectors and supplier industries. Revenue produced by sales to American smokers was the overwhelming contributor to the GNP, with \$28.3 billion; net export sales and spending for capital investment totaled \$1.9 billion and \$1.3 billion, respectively.

Tobacco industry manufacturing, purchasing and sales created employment, payrolls and tax revenues in virtually every sector and region of the nation:

- 414,000 jobs, paying more than \$6.7 billion in the tobacco core sectors
- 296,000 workers paid nearly \$7.4 billion in the supplier industries
- \$9.8 billion in excise and sales taxes paid to federal, state and local treasuries
- \$5.9 billion in income taxes, individual and corporate, property and other taxes

The Chase Econometrics report also reveals that tobacco is important not only in the tobacco-producing states



*By percent of retail price, tobacco is the most heavily taxed of all consumer products*



such as North Carolina, Virginia and Kentucky. It is a vital part of the economy in all 50 states. For example, while North Carolina ranks first in compensation from tobacco-related employment, New York is second, followed by Virginia, Illinois, California, then Kentucky.

Tobacco spending triggers what the Chase economists call an "induced" economic effect. This comes about when the 710,000 employees of the tobacco industry and its suppliers spend their \$14.1 billion in income on goods and services.

For example, the purchase of a new car by a tobacco worker in North Carolina generates manufacturing jobs

in Michigan and Massachusetts, electrical equipment manufacturing jobs in Ohio and advertising jobs in New York.

Such spending contributed in 1983 to the employment of nearly 1.6 million workers in other industries. Almost one-third of these jobs were in manufacturing; roughly one-fourth were in retail trades; nearly one-fifth were in the finance, insurance, real estate and services; one-tenth were in mining and construction. These workers earned \$30.9 billion.

Virtually every industry in the United States is connected directly or indirectly with expenditures from tobacco. The industry's spending-induced impact also generated:

- \$20.5 billion in capital investment
- \$14.2 billion in federal, state and local taxes

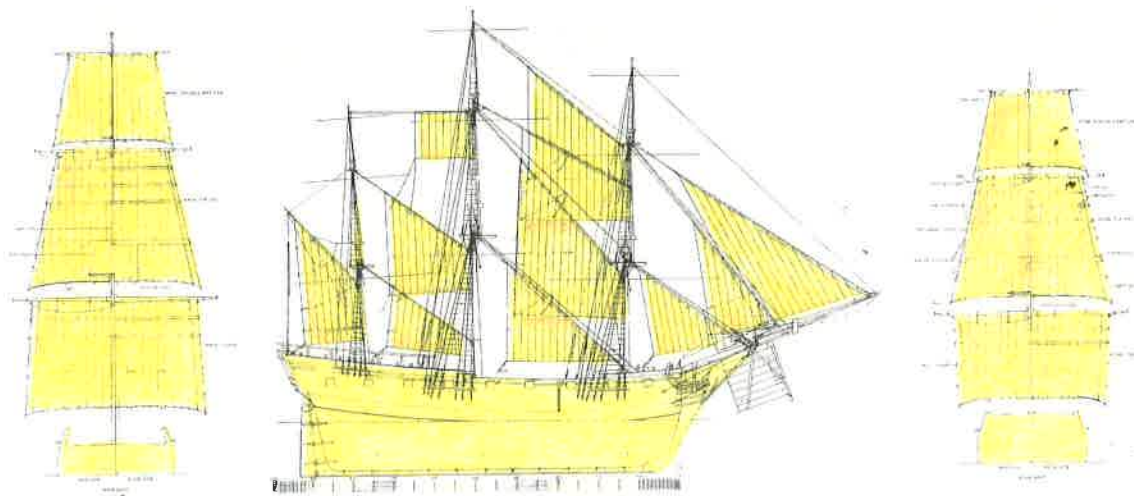
In short, this induced spending accounted for \$50.6 billion to the Gross National Product—nearly twice the expenditures on tobacco products alone.

### **Deep Roots in American Life**

From the first colonial days to the present, tobacco has been firmly entrenched in the economic framework of the United States. The continuing hard work and enthusiasm of the farmers and those persons working in tobacco-related industries assure that the golden leaf will remain an important part of American life and economy for years to come.







## TOBACCO and the *Brilliant*

The departure of the tobacco-laden *Brilliant* from Virginia shores in 1775 symbolized the final days of colonial trade from the tobacco coast.

Americans would in five short years run their own foreign trade.

The Virginia-built ship was bound for Liverpool, carrying 200 hogsheds of tobacco on her maiden voyage. She was one of very few vessels built in the colonies, for during the early years of tobacco trade most were British-built. Not until the mid-18th century did Americans become active in shipbuilding. Then most of the larger vessels were built in the southern colonies.

*Brilliant's* 1775 departure from Chesapeake Bay was, in all likelihood, her first and only commercial voyage from the New World. She later saw service as British ship of war, under the name *H.M.S. Druid*, and, after 1779, as the fire ship *Blast*. She survived the war,

was sold out of service in 1783, and would sail the seas 15 years longer as a Greenland whaler.

It is fitting that tobacco, the major source of income for the colonies, was the cargo that christened the hold of the three-masted vessel. When the Smithsonian Institution began looking for a single impressive exhibit embodying a century and a half of colonial maritime history, recreation of *Brilliant* was a logical choice.

The Smithsonian's curator of maritime history cites *Brilliant's* complete history, her plainness and rugged utility. However, he adds, the discovery that her first cargo was Virginia tobacco was a deciding factor in her choice.

Today, a one-tenth scale model of *Brilliant* occupies center stage in the Hall of American Maritime Enterprise at the Smithsonian Institution's National Museum of American History in Washington, D.C. Complete plans and

a description of her fittings, drawn up in the 1770s, and a U.S. Bicentennial grant from The Tobacco Institute facilitated the vessel's reconstruction.

*Brilliant* is a fitting tribute to the golden leaf that played such a vital role in the development of the nation.





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