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FROM: SAMUEL D. CHILCOTE, JR.

The following article appeared in the Florida Times Union today, January 12.

"ADDITIVE ADDS MYSTERY TO RISK OF SMOKING" by Ken Cummins, Times Union, Washington Bureau, dateline Washington.

Old hands in the American tobacco industry say that deertongue -- a swamp weed that grows in north and south Georgia and north Florida -- was one of the best flavoring agents ever added to tobacco products.

That was because of a substance in the plant called coumarin.

But in 1954, the federal Food and Drug Administration (FDA) banned coumarin in food stuffs in the U.S. because tests showed it was poisonous to the liver. Also ominous were German tests in the 1960s that link coumarin to cancer in laboratory animals.

At its height the picking and shipping of deertongue in Florida and Georgia was a major cottage industry.

It still is.

"I keep company with the big boys," said Sam Friedman, a dry goods store owner in Jessup, Ga. who also sells deertongue picked in south Georgia, swampy areas and woods.

Friedman said he annually buys and sells more than 200,000 pounds of deertongue, a weed with long, tapered purple tinted leaves, shaped like tongues, directly to the tobacco companies and the companies that produce flavorings for the tobacco industry.

Spokesman for most of the American tobacco companies and the industry will not say whether deertongue is going into the products they sell in the U.S.

But a three-month investigation conducted jointly by the Florida Times Union and by Mother Jones magazine shows that deertongue -- as much as one million pounds of it a year -- is going into something somewhere.

And there is evidence strongly suggesting that tobacco companies are, indeed, using the risky additive.

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The evidence is based primarily on admissions by deertongue suppliers that the tobacco industry continues to buy from them. And some sources within the industry claim that deertongue might be exported for use in foreign tobacco products and that the weed is probably still used in snuff and pipe tobacco sold in the U.S.

However, no one -- not even the federal government -- has been able to prove conclusively that deertongue is used in American tobacco products.

"As far as I know, everyone of them [tobacco companies] uses deertongue," said Tommy May a Brunswick, Georgia auto parts businessman and long time deertongue salesman. May's father, T. Roosevelt May, pioneered the deertongue collection business in the late 1930s.

Kurt Schoen of David Michael & Company, a flavoring house in Philadelphia says he suspects that manufacturers still put deertongue in cigarettes because it is cheaper than "deertongue replacers," which his firm blends for tobacco products.

Tom Neal of M.F. Neal Company in Richmond, Virginia -- recognized as the largest supplier to the tobacco industry and flavoring houses of deertongue and other natural botanical flavorings -- said cosmetic companies now buy a large amount of his deertongue for use in perfumes and soaps.

But officials with other major companies that process deertongue for use in tobacco products says cigarette manufacturers are their only customers for the swamp weed.

Industry and flavoring-house officials say that deertongue imparts the flavor of vanilla to tobacco and gives it an aroma of "newly mowed hay."

"The only real use is in tobacco," said Kenneth Wilcox of Wilcox Drug Company in Boone, N.C. a supplier of natural products for use in tobacco, medicines and cosmetics, as well as other items.

"We only sell it to the tobacco industry," said Charles Blum an official with the Chart Corporation, a New Jersey flavoring house. "You can't put it in food because it contains coumarin, which is a carcinogen (cancer-causing agent)."

"The only use for it I know of is in tobacco," said Frank A. Martin whose Virginia Beach company annually sold almost a half-million pounds of dried deertongue to Philip Morris, R. J. Reynolds and the American Tobacco Company at the end of the 1960s. Martin's spice company stopped handling tobacco flavorants in the early 1970s.

An official with U.S. Tobacco Company, a leading maker of snuff and pipe tobaccos, said his concern annually buys from the Neal Company around 12,000 pounds of granulated deertongue for use

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in products sold in the U.S. The official asked that his identity be protected.

Wilcox of Wilcox Drug Company said, "it's used more now in snuff than in cigarettes."

Managers of several New Jersey flavoring houses said deer-tongue extracts, blends and compounds are prepared according to instructions provided by the tobacco companies. But these flavorings specialists said that they do not know how their products are used once inside the manufacturing plants. Tobacco company officials also say the companies do not allow a single flavoring house to prepare an entire formula in order to protect the secrets of their blends.

"They [tobacco companies] don't like us asking a lot of questions," said one flavoring house manager who asked not to be identified.

"We really do consider flavor-enhancing to be a trade secret, and we prefer not to discuss that area at all," said Robert J. Ruckeyser, public affairs director for American Brands, Inc., the parent company of the American Tobacco Company.

The six major cigarette manufacturers -- Philip Morris, R. J. Reynolds, American Tobacco Company, Lorillard, Liggett & Myers and Brown & Williamson -- and the U.S. Tobacco Company have official policies that prohibit current and former employees from discussing what is added to their products.

"It would be an extraordinary breach of our policy to discuss what we use or what we don't use," said Ernest Pepples, Senior Vice President and General Counsel for Brown & Williamson, which has its headquarters in Louisville, Kentucky.

"The recipes (for flavorings) are carefully kept secrets," Pepples said, "that's all we have got to sell is the difference. You are asking me to talk about something that is the margin of excellence."

Art Bentley, spokesman for U.S. Tobacco, said "due to the competitive nature of the tobacco industry, all information is proprietary and confidential."

Even the federal government does not know what goes into the tobacco products sold in the U.S., although it is trying to find out.

In 1980 Julius Richmond, Surgeon General under President Carter, launched an effort to see a list of cigarette additives from the six major cigarette manufacturers.

The companies refused to disclose any information until the Reagan administration pressed the issue.

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Under an agreement negotiated in the summer of 1982 between the Department of Health and Human Services and tobacco industry representatives the government soon will get a list of additives compiled by the industry-financed Tobacco Institute.

But the list will not be complete.

According to the agreement, the list will contain only any additives used by at least three of the six major manufacturers, or any additive used in large amounts. The agreement does not yet specify what constitutes "large amounts."

At one time tobacco companies in the U.S. were using more than 6 million pounds of deertongue annually, according to best estimates. But that was before West German tests linking coumarin with cancer sent shockwaves through the industry.

Germany banned coumarin entirely in 1969 after tests showed that it caused malignant tumors in rats and dogs. Early studies in Great Britain in 1965 had shown that coumarin taken orally might cause cancer in humans.

But the German ban was lifted in 1981 after another round of studies indicated that coumarin may not be as dangerous as originally thought.

Those studies -- performed on babboons -- indicated that humans handle coumarin in the body different from mice, rats and dogs, the usual laboratory test animals. The 1981 German tests duplicated the results of British experiments on people that showed that coumarin passes rapidly through the body.

But the controversy about coumarin and other tobacco additives rages on.

Dietrick Hoffman, a cancer scientist for the American Health Foundation in New York City describes coumarin as an "absolutely atrocious animal carcinogen" that should not be added to tobacco products.

And regardless of whether coumarin causes cancer are as harmful in other ways, the FDA continues to ban it for use in food in the U.S.

Meanwhile, the tobacco industry is so competitive that no one wants to say much about the deertongue controversy.

"Even if they don't use it anymore, they don't want their competitors to know that," says G. H. Cassel-Smith, head of Tobacco Technology, a flavoring house in Upper Coe, Maryland.

"I have been told now its strictly export," said E. Van Nouhouc, sales representative for Dr. Madis Labs in South Hackensack, New Jersey, the major U.S. flavoring house that prepares deertongue extract for the cigarette industry.

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"We have customers that buy 10,000 pounds a year," he says. Dr. Madis customers include major American manufacturers, he said.

But he added, "most tobacco people are afraid to use...- [deertongue in products sold in this country] because it is suspect."

An R. J. Reynolds executive said some tobacco companies adhere to the FDA's "generally regarded as safe" are GRAS list of approved food additives, even though it does not cover tobacco products, because "it is something to hang their hats on."

An official with a large New York flavoring house said tobacco representatives "want to be able to stand up at a Congressional hearing and say that everything they add to cigarettes can be sprinkled on corn flakes."

Other tobacco industry representatives, however, said the manufacturers do not take the GRAS list as a standard -- at least not publicly -- for fear it would strengthen arguments that tobacco additives should be regulated by the FDA.

"Basically, you get away with whatever you can in this business," said an official with one of the six major tobacco companies. The official requested anonymity.

There have been at least three significant tests for coumarin in American cigarettes. Those tests indicate coumarin is present in cigarettes, but do show a drop in the amounts from one test to another.

One U. S. Department of Agriculture study in 1973 of suspected cigarette additives, which included deertongue, showed significant amounts of coumarin.

Studies in 1978 tested one particular brand of cigarettes and found 26 separate components in the smoke, including small amounts of coumarin. A second test of that same brand early in 1982 showed only slight amounts of the substance.

The results of the 1973 studies caused a stir at the 27th Annual Tobacco Chemist Research Conference in Winston-Salem, North Carolina in October of that year.

Alarmed industry representatives and research directors feared the study results would jeopardize cigarette exports since the West German ban was still in effect at that time.

"They [tobacco companies] told us flatly they didn't use... [deertongue] any more, and that was it. There was no more discussion," recalled Howard C. Zigman, involved in both the 1973 and 1978 Department of Agriculture studies.

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Government scientists involved in the 1978 tests said at the time they were not certain the coumarin was added. They thought the coumarin might be a by-product of the burning of the tobacco itself.

Higman disputed that, saying the 1978 tests demonstrated that coumarin survives the burning of the cigarette and is inhaled by the smoker.

Higman, who left the government shortly after those tests were concluded, said there might have been something more to the scientists uncertainty.

"That may have been political," Higman said "the work was very closely edited at the national levels."

Now, the Agriculture Department scientists who worked on the studies say they are convinced that coumarin is not a by-product, and that, if it is present in cigarettes, it has to be an additive.

But the government is worried about much more whether tobacco companies are using deertongue.

In a January 1981 report, the U.S. Surgeon General targeted cigarette additives as potential major health problems requiring government attention.

"In its headlong rush to lower tars, the industry may have added substances that create new smoking-related diseases," said John Pinney, who was director of the U.S. Department of Health and Human Services Office on Smoking and Health from March 1978 to June 1981 during the time the report was written and released. "We were faced with a potential health problem we knew nothing about."

Government sources said the Office on Smoking and Health is concerned about other known or suspected carcinogens that manufacturers may be adding to their brands.

Some of these substances, when burned, produce compounds that cause health hazards, such as interfering normal clearing of the lungs, or act as co-carcinogens when burned with other chemicals.

Pinney finds the agreement to provide only a partial list of additives unsatisfactory.

"Cocoa, coumarin and glycerol and other probable additives give rise to animal carcinogens that you don't want in cigarettes," said Pinney, who also has been the director of the Washington D.C. office of the National Council on Alcoholism and is now a consultant on health issues for private corporations and voluntary health organizations.

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Pinney said his opinion is based on information included in the 1981 report by the U.S. Surgeon General and on data provided him by leading scientists in the field while he was director of the Office on Smoking and Health.

And scientists worry that the public may never know about those potential health hazards because of the agreement to produce only a partial list of additives.

"It appears to me the companies have found a way to show only what they want to show," Pinney said. "It is quite conceivable that a leading brand smoked by a large number of people could contain an additive which no other company is using, [but] which would pose a risk to these people."

[Jim Mintz, a New York based free lance writer on assignment for Mother Jones magazine assisted in the research of this article. Mother Jones is a monthly national magazine specializing in investigative reporting and politics.]

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