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## Cranberry Smash

The recent hullabaloo about cranberries was initiated on 9 November—"Black Monday" to the cranberry industry—when Secretary of Health, Education, and Welfare Arthur S. Flemming warned the public that a part of the current crop was contaminated by a weedkiller, aminotriazole. The announcement raised the curtain on a political drama that is variously interpreted according to the predilections or interests of the observers. One version has it that the action was an unwarranted attack by Big Government on a small industry that supplies the American housewife with a "pure, wholesome, and nutritious food." At the opposite extreme, the Secretary is pictured as a champion of public health, protecting the consumer in courageous disregard of the political consequences.

Whatever the interpretation, the surface facts are not in dispute. The product, aminotriazole, is properly registered with the Department of Agriculture as an economic poison. If it is used in cranberry bogs as directed, within a few days after harvest, and at no other time, it will not be incorporated in the berries produced the following year. But if it is used during the growing season it will be incorporated in the berries.

In 1957 the product was apparently misused by some growers, and the FDA succeeded in having 3½ million pounds of cranberries withdrawn from the market on the grounds that the berries had not been shown to be safe for human consumption. Before that, the American Cyanamid Company had asked that a tolerance for a certain amount (reportedly 1 part per million) of aminotriazole be set, but the FDA denied the petition on the grounds that tests run for the company by an independent laboratory showed the compound to be a possible carcinogen (cancer inducer).

In 1958 the company again petitioned that a tolerance be set, and the petition was again denied; no appeal was made.

Apparently few growers misused the product in 1958, and no seizures were made. In 1959, however, contaminated berries were found, first in Washington and Oregon and then in Wisconsin. Impounded lots are being tested and released as soon as they are shown to be uncontaminated.

What are the scientific issues? This question would be easier to discuss, if not to answer, if the basic facts about the compound had been made public by the FDA. As of this writing, both the petition and the scientific appraisal by FDA scientists and physicians are confidential, but it has been possible to obtain some information. The tests showed that rats fed for 2 years on a diet containing 100 parts per million of aminotriazole developed a significant number of thyroid adenomas and adenocarcinomas ("cancers"); those similarly fed at the rate of 50 parts per million developed adenomas (nonmalignant tumors) but not, according to a company spokesman, adenocarcinomas. It is a reasonable inference that the FDA disagreed with this interpretation of the results as well as with the company contention that the one rat out of a total of ten that developed an adenoma at a feeding level of 10 parts per million was not statistically significant. The company argues that the substance is not a carcinogen: it must be administered continuously over a long period of time to induce cancer; a single dose, no matter how large, is not effective.

Secretary Flemming disagrees and bases his action on the statement in the Federal Food, Drug, and Cosmetic Act which says that "no additive shall be deemed safe if it is found to induce cancer when ingested by man or animal . . ."

The scientific issues are unresolved. Whether the Secretary's position is extreme cannot be appraised until the evidence is out and expert opinion is brought to bear. One prediction is safe: some battle lines have been drawn for the next session of Congress.—G.DuS.