that confirms that nicotine delivery is being independently and carefully manipulated by tobacco manufacturers. This newly gathered information, together with the other evidence of the industry's breeding, purchasing, blending, and manufacturing practices, reveals the extent to which manufacturers control the amount of nicotine that is delivered to the consumer from cigarettes and provides further support for the Agency's conclusion that tobacco manufacturers intend their products to affect the structure or function of the human body.

a. Tobacco Leaf Growing

The industry's control and manipulation of nicotine in the production of cigarettes begins long before the cured tobacco leaf reaches the manufacturing plant. The characteristics of leaf tobacco, including nicotine content, are established by the genetic makeup of the plant, developed during growing, and fixed by post-harvest handling. Like other raw agricultural commodities, the physical and chemical properties of tobacco, including nicotine, can vary widely, depending on genetic differences, growing season conditions, and soil type. This subsection describes the methods used by the tobacco industry to control and manipulate nicotine through careful genetic breeding and agronomic practices. As one industry expert stated, "nicotine is the key chemical constituent of the leaf and smoke and the reason for which tobacco is grown." 397

Modern types of cultivated tobacco (*Nicotiana tabacum L*) have been selected for a relatively high level of nicotine.³⁹⁸ Five major types of tobacco make up nearly all tobacco

³⁹⁷ Adapting agronomy to the needs of the low-tar era. World Tobacco. October 1977. Page 137.

³⁹⁸ Id.