- p. 1
- line 11-12 last part of sentence is redundant. Any food subject to FFDCA is already introduced into interstate commerce. Antecedent is ambiguous; could be either foods or new scientific methods.
- line 16 "scientific information" is too vague. "information on the chemical composition" might be better.
- p. 10 Clearly state that FDA is developing an inventory of future commercial foods derived from plants developed by new biotechnology (see lines 14-15 "FDA is using this inventory . . .") in order to identify the types of new plants under development.
- p. 27 B. Unintended events
- p. 28 The nature of the unintended effects on gene expression may vary, depending on:
 - 1. the site of integration in the genome of the host plant
 - the number of integration sites
 - 3. the number of copies of the introduced BNA at each integration site
 - 4. the source and nucleotide sequence of all introduced DNA
- p. 34

lines 9-17 appear to provide a justification for the use of tox studies in safety assessment, citing as an example the inability of analytical or molecular methods to detect the presence of a unknown toxin produced by activation of a previously cryptic gene. However, lines 8-end of paragraph say that tox studies will not be needed if DNA insertion is limited to only a single site of known genomic location. This discussion implies that pleiotropy (i.e., production of a unknown toxin due to activation of a previously cryptic gene) will disappear or be negligible if gene insertions are limited to a single copy at a known genomic location. Evidence should be provided to support this position.

- p. 37
- lines 10-15 Are we asking the crop developer to prove that food from his crop is non-allergenic? This seems like an impossible task. Perhaps we could ask for evidence that the new variety is no more allergenic than conventional varieties.
- p. 38
- lines 2-4 As sequence data on known allergens increases, it may become increasingly useful to utilize sequence data to screen for the presence of potential allergens in food.
- p. 87 Paraphrase of Version #2
- If insertion of genetic material is restricted to a single known site in the plant genome, then traditional toxicology studies will not be necessary to provide adequate assurance of safety with respect to the issue of unknown toxicants.

Comment: What if the inserted DNA is from a non-food source and encodes a protein product that is toxic to certain organisms (e.g., Bt toxin)? Wouldn't knowledge of the toxicity of this protein product be necessary to ensure safety? It is my understanding that pleiotropic effects are unpredictable, and may be triggered by gene insertion at a single site, as well as at multiple sites, in the plant genome. Restriction of foreign DNA insertion to a single site in the plant genome would reduce, but not eliminate the chance that the insertion event might trigger pleiotropic effects. This position is supported by the discussion on p. 28. The document does not present evidence that pleiotropic effects (e.g., alterations in biosynthesis of unknown toxicants) can be controlled by restriction of foreign DNA insertion to a single site in the plant genome. If such evidence exists, it should be summarized in the document.

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