

- **Where to collect:** Domestic samples are to be collected at the warehouse and retail stores only. Import samples are to be collected at the port of entry.

2. Combined Interest for Investigators, Labs, and Compliance Officers

2.1 Objectives

- To determine the levels of selected herbicides (glyphosate and acid herbicides) in selected foods and generate data on the levels of herbicides in foods consumed by U.S. citizens.
- To take appropriate regulatory actions when violations of FD&C Act are found.

2.2 Background

Herbicides are widely used in the U.S. and around the world for weed control and as plant growth regulators for agricultural crops, lawns, and gardens. Herbicide active ingredients account for more than all the other types of pesticides combined, comprising over 60 % of the U.S. pesticide sales in 2007; fourteen of the top 25 most commonly used pesticides in the U.S. are herbicides. Included among them are glyphosate and the acid herbicides. Glyphosate is the most widely used pesticide in the world and the acid herbicides include five of the top 10 active ingredients used in the home and garden sector: mecoprop, dicamba, triclopyr, pelargonic acid, and 2,4-D (also one of the most commonly used pesticides in the world). Usage of 2,4-D is expected to triple in the coming year when crops genetically modified to resist it are introduced into the agrochemical market.

Most government reviews have concluded that glyphosate is relatively safe but controversy occurred recently when the International Agency for Research on Cancer (IARC) said glyphosate-containing formulations are probably carcinogenic to humans. The health effects of other herbicides include affecting the nervous system and hormone or endocrine system, and some are carcinogens.

FDA has never monitored glyphosate and the acid herbicides in its regulatory pesticide program. In its audit of the FDA's pesticide program, GAO noted that glyphosate and 2,4-D were among the most commonly used pesticides in the United States, but that FDA has rarely tested for these pesticides in its regulatory monitoring program or disclosed the fact that it does not test for these pesticides. In its response to the audit, FDA stated that it was considering whether glyphosate and 2,4-D would be added to its pesticide residue monitoring program.