Facilitating registration of sustainable pest management technology for specialty crops and minor uses.
The IR-4 Project is a cooperative effort charged with assisting specialty crop growers in solving pest management problems. Specialty crop growers are faced with multiple pest management challenges as they grow Colorado’s multi-million dollar harvest of fruits, nuts and vegetables along with a bevy of ornamental horticulture crops from greenhouse and nursery plants to cactus. The unique nature of Colorado’s intensive specialty crop production necessitates the development of important new pest management products. IR-4’s mission is to address the needs of high value low acreage crop growers that are not otherwise addressed. About 80% of IR-4 research projects are conducted on reduced-risk chemistries and biopesticides that fit well into Integrated Pest Management (IPM) systems.

Who Benefits From IR-4 Activities?
Colorado growers benefit by having effective pest management tools that enable them to produce a plentiful supply of high quality food and ornamental horticulture crops. This in turn benefits the general public, food processors and other related industries which are provided with a safe, high quality, economical supply of food and horticulture crops.

Working in Cooperation
IR-4 works in cooperation with the Colorado State University, the State Agricultural Experiment Stations, and Land Grant Universities, USDA-National Institute of Food and Agriculture (NIFA), USDA-Agricultural Research Service (ARS), USDA-Foreign Agricultural Service (FAS), US EPA, and other regulatory agencies, growers and commodity organizations, and the crop protection industry.

How IR-4 Helps Growers
When a pest is discovered or new pesticide use is needed on a specialty crop, growers, extension agents and researchers are encouraged to submit a project request to IR-4.

Once Needs are Identified
• Industry is consulted for project support
• Projects are prioritized
• Research is conducted

IR-4 Generates Data for...

Food Use
• Residue data from research trials are compiled and submitted to the EPA for review and establishment of pesticide tolerances
• The manufacturer adds the use to the label

Ornamental Horticulture
• Efficacy and crop safety data are compiled into research summaries which are sent to manufacturers
• Manufacturers review summaries and incorporate into technical literature and product labels

Outcome:
Healthier crops are produced and crop protection issues are resolved.

IR-4 Helps Food Crop Growers
Colorado fruit and vegetable growers annually produce about $313 million worth of crops for US and international markets (2007 USDA-NASS Census of Agriculture). Healthy crops are critically important to specialty crop growers. IR-4 has responded to hundreds of requests from Colorado for registration of pest management products on food crops. By developing required data, thousands of new product uses have been registered that support Colorado growers.

IR-4 Helps Ornamental Horticulture Growers
with perennial plants, pine, ash, shrubs, poplars, petunias, spruce, geraniums, and oaks.

IR-4 researchers in Colorado have worked with these and other crops grown by Colorado growers, who produce $266 million (2007 USDA-NASS Census of Agriculture) in annual ornamental horticulture sales.

The IR-4 Biopesticide and Organic Support Program Helps Colorado Growers By
providing resources that promote the use of biopesticides along with traditional IPM. The IR-4 Biopesticide and Organic Support Program was expanded recently to include the development of new tools for organic growers.

IR-4 Public Health Pesticides Program (PHP)
Initiated in 2009, the IR-4 PHP program is a partnership of USDA-ARS, the US Department of Defense and IR-4. It was created to facilitate development and registration of toxicants, repellents and attractants to manage public health pests such as mosquitoes, ticks, sand flies and to protect military personnel from arthropod borne diseases.