Program: **Environmental Logic Model**

Situation: Water and soil quality and health along with compliance of chemical use is vital for agriculture. Non-compliance can impact eligibility for cost share and/or federal funding, result in legal ramification, and loss of business. Extension encourages Integrated Pest Management and promotes the Kentucky Pollinator Protection Plan.

Inputs

UK specialist, agents and resources

Kentucky Department of Agriculture

Kentucky Department of Health and Family Services

Kentucky Department of Fish and Wildlife

Commodity Organizations

NRCS

Outputs

Activities

- Programs
- Conferences
- Newsletters
- Media (newspaper articles, radio, televisions)
- Farm visit
- Field days
- Webinars
- Website
- Social media

Participation

- Livestock producers
- Crop producers
  - Forage
  - Grain
  - Tobacco
  - Hemp
- Commercial horticulture growers
- Farm workers
- Home horticulture
- Consumers

Outcomes

Short

Recognize Integrated Pest Management practices

Gain knowledge on establishing pollinator habitats, maintenance, processing, and/or marketing honey

Identify safe chemical management practices Recognize correct use and storage methods

- Gain knowledge of backyard streams, watersheds, stream ecology & best practices
- Gain knowledge of water quality in urban areas

Medium

- Scout fields, high tunnels, greenhouses or gardens weekly
- Integrate new cultural management tactics
- Include biological controls
- Alter existing spray program to reduce likelihood of resistance development or non-target impacts

- Used Extension resources in making decisions related to pollinators, habitats and/or processing or marketing honey
- Employ best practices

- Complete Ky Pesticide Applicators Training
- Train in Worker Protection Standards
- Use personal protection equipment
- Update spray program
- Test pesticide application water
- Select alternate materials
- Adapt for good practices in chemical handling, storage and/or disposal
- Evaluate weather conditions before applying chemicals
- Communicate when using chemicals

Implement best practice to:

- improve soil health
- conserve soil and/or water
- increase soil organic matter
- improve soil structure for water infiltration or retention
- increase ground cover for soil protection
- improve water quality
- protect stream banks or stream buffers
- plant native plants
- develop or update Ag Water Quality Plan
- develop or update nutrient mgt plan
- adjust rate, timing, placement and/or source of nutrients
- adopt changes to improve the water quality of forested streams

Long

Sustain Kentucky agriculture

- Social
- Economic
- Environmental

Minimize environmental impact

Support new and beginning agriculture producers

Assumptions

External Factors