The Backstory
The grower, on the ground, every day . . .

- Precisely knows every aspect and characteristic of the cultivated area
- Knows the influence and significance of conditions adjacent to the cultivated area
- Is alert to sensitive areas

“But . . .”

EPA, conducting risk assessments using resources available . . .

- By necessity depends on aggregated data
- Must rely on modeling and standard “crop scenarios” for efficiency in the assessment process
- Is alert to sensitive areas with respect to their character but not exact relationship to areas treated

Which most often results in . . .

Mitigation of that risk through

- Restrictions on use patterns or use rates
- Spatial separation between a perceived risk and a sensitive area or organism typically resulting in “a buffer”
FESTF was formed in the 1990s as a FIFRA Task Force to meet specific data requirements imposed by EPA on pesticide registration and re-registration.

FESTF has continued throughout these 20 years to meet federal regulatory requirements for its now 20 member companies.

Over all these years, EPA has reviewed and closely monitored FESTF’s submissions and, with other federal agencies, continues to work cooperatively with FESTF as the Task Force meets additional FIFRA/ESA requirements.

FESTF Member Companies

ADAMA Agricultural Solutions, Ltd
Albaugh, Inc.
AMVAC Chemical Corp.
BASF Corp.
Bayer CropScience
Cheminova A/S
Dow AgroSciences, LLC
DuPont Crop Protection
FMC Corp., Ag. Products
Gowan Company, LLC
ISK Biosciences Corp.
MacDermid Agricultural Solutions Inc.
Monsanto Co.
Nichino America, Inc.
Nippon Soda Co., Ltd.
Nissan Chemical Industries, Ltd.
Nufarm Americas, Inc.
PBI/Gordon Corp.
Syngenta Crop Protection, Inc.
Valent USA Corp.

Providing Solutions
FESTF contributes to the knowledge base that supports national level risk assessment.
FESTF Work Products

The Data

- Aggregated data on
  - Species locations
  - Crop or pesticide use locations
  - Species biology, local data and conditions

- An information management system to
  - Collect and compare the data
  - Document species assessments conducted on individual active ingredients
  - Recall and build upon collected data over time

- Emphasis on data quality and identification of known data gaps

The Result

Multiple lines of evidence fully documented, accumulated to refine exposure conditions — and reusable, if appropriate, for subsequent investigations
FWS regional offices received the maps in two phases, for a total of over 1,000 species maps. FWS is in the review stage and has begun their validated range maps to EPA.

FESTF maps were delivered through FESTF’s Information Management System.

- FESTF aggregated data were shared in a series of meetings with EPA OPP and the Services.
- After the Services and EPA agreed that FESTF data were the best available national data sets, FESTF produced maps for every listed species, fully supported by source and metadata information.

The final phase - Hawaii and the Pacific islands - is underway and even more interactive between FESTF and FWS.

There are more than 8,900 locations of ESA-listed species in Hawaii and limited federal resources for data management.
Lessons Learned

Spatial data are adequate but not sufficient

- Spatial data of adequate resolution are available for less than half of the ESA-listed species
- Crop spatial data, particularly on minor crops, are not always well characterized

All available lines of evidence are necessary for an accurately informed assessment

- Information on species size, behavior, diets, habitats and temporal presence and the relationship of those attributes to pesticide use and toxicity
- Regulatory reports on primary stressors and factors critical to survival and reproduction
- Expert knowledge on local conditions and interactions

Data are constantly changing

- Species are listed and delisted, or the description of their range is modified
- Data sets are improved, corrected or added to over time
- Cropping trends change, temporarily or according to definite trends over time
- Information technology increases the ability to deal with larger data sets, higher refinement and faster processing
Addressing Further Challenges
There are additional opportunities to improve the national level data

FESTF is partnering with Washington state in a pilot project to lift valuable state data to a national platform

This may be a way to tap into state resources and make data more efficiently available for use on the national level

Other data important and “ripe” for improvement are minor crop data

High value minor crop locations are challenging to portray at the national level but often clearer at the state level

There are also methods to portray data in more meaningful ways

Multiple crop-year data simply overlaid together for several years can be arrayed to give additional information to the risk assessment process.

FESTF will continue providing best available data to meet FIFRA endangered species assessment requirements