

Risk Communication

April 14, 2021

Pesticide Risk Framework

Risk = Toxicity & Exposure



- Toxicology of active ingredient
- Product signal word
- Formulation of the product
- Effects (signs, symptoms) reported in the literature
- Onset & duration of symptoms

- Distance to application site
- Physical/chemical properties of active ingredient
- Duration/frequency of exposure
- Formulation
- Bioavailability by the exposure route
- Ways to minimize exposure

Hazard and Risk Are Different

While this concept may seem intuitive for scientists, it is often confused by the public and the media. When they describe a hazard, it is presented as a risk.

Why is this important:

Hazard is potential for harm. It is independent of exposure.

Risk is some probability (and associated uncertainty) that harm will occur if exposed to the hazard.

Risk Perception

Scientists

General Public

Probability & consequence

hazard & outrage



Public Perception of Pesticide Risks

- Public perceptions of pesticide risks have impacts (ripple effects, stigma)
- Most public perception of pesticide risk is NOT determined by careful deliberation (misinformation)
- Understanding how the public perceives pesticide risks is critical for effective risk communication and risk management
- Developing trust is critical (hard to win, easily lost when pesticide incidents happen)

Risk Acceptance is a Subjective Value

- For example, is risk from cancer (a dread disease) worse than risk from auto accidents (not dreaded)?
- Is a risk imposed on a child more serious than a known risk accepted voluntarily by an adult?
- Are the deaths of 50 passengers in separate automobile accidents equivalent to the deaths of 50 passengers in one airplane crash?



But the public is always concerned whether it is **SAFE** to use pesticides

Safe is a subjective term. Public concern can imply many things including:

- Knowledge and understanding
- Health and well-being
- Food safety (residues)
- Occurrence of pesticide incidents (mortality, intoxications)
- Illegal use of pesticides
- Use of too many HHPs
- Misinformation

Effective Pesticide Communication Tools

- Communication program
- Communication strategies
- Frequency of communication
- Communication media:
 - Public websites
 - Routine press releases
 - Media interviews (special preparation needed when addressing pesticide-related incidents)

What to Avoid in Communicating Pesticide issues

Undefined technical terms & lots of acronyms.

Repeating negative allegations from the public or media.

Speaking in the abstract.

Promising unrealistic outcomes or timelines.

Making inappropriate comparisons.

Ignoring empathy, dedication & transparency

Communication Tools

- Actively listen to concerns
- Do not interrupt
- Acknowledge their feelings
- Address the core concerns
- Politely correct misinformation (not emotions)
- Acknowledge when you don't know something
- Offer third-party informational resources



Address Expectations

Often, a major contributor to conflict is a misunderstanding of expectations.

- Explain your role
- Discuss limitations
- Discuss decision-making process
- Provide background
- Address timelines



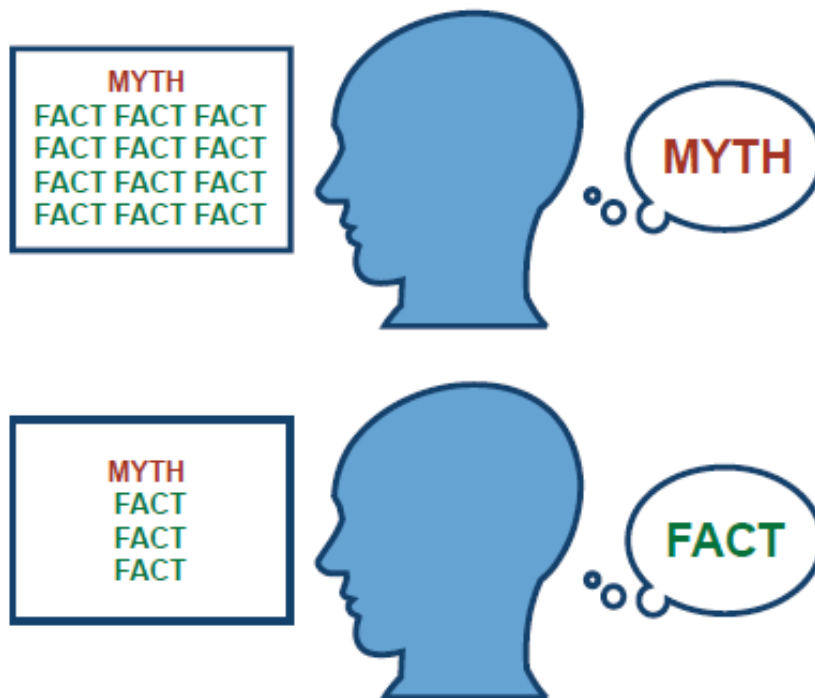
Uncertain?

Be transparent when you don't know the answer to .
challenging questions.

- *How do you know if the residue won't accumulate in my vegetable garden?*
- *Has this product been on the market long enough to be sure its won't cause cancer?*
- *What about what I read on the Internet?*
- *Does it affect children different than adults?*

Avoid Overload

When we are trying to debunk a simple myth with a complicated fact, we have to work very hard at communicating the fact **SIMPLY**, in a time and place it will be heard.



Remember, we also communicate by:

- Our reputation
- Our attitude
- Our action/inaction
- Our timeliness
- Our follow up
- Our affiliation
- Our dedication



Trust

- If you have trust the path is smooth.
- If you do not have trust, no communication likely to be successful.
- Negative events are more sharply defined (accidents, lies) and remembered.
- Negative (trust-destroying) events outweigh positive events