STANDARDS FOR PLASTIC FILM RECYCLING - *CONSIDERATIONS*

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"IF YOU CAN MEASURE IT YOU CAN MANAGE IT"....

"..when you can measure what you are speaking about, and express it in numbers, you know something about it; but,

when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind;

it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the state of Science, whatever the matter may be."

Lord Kelvin 1883

Are there lessons learned from Pesticide or PPP Container Recycling?

Looking

Back

To

1981…..

☐ Goal? 1. Environmental Health

☐   2. Viable *Options* for Users

☐   3. Create "Value"-

                 recovered "product"

What was unsure, not a given?
Pesticide or PPP Container Recycling

Looking

Back

To

1981.....

- ☐ What is the range of material composition?
- ☐ How does the user handle the "object"?
- ☐ Can user's handling improve the "value"?
- ☐ If cleanliness improves value, how to improve efficacy of that cleaning process?
- ☐ How to measure/inspect (in reasonable time) the cleanliness???
- ☐ Will this testing *assure* environmental health?

What was unsure, not a given?
Pesticides or PPP Container Recycling

Looking

Back

To

1981.....

- ☐ How or does the user consolidate the "product?"
- ☐ Who will shoulder the burden of collection? Are their incentives? What?
- ☐ Will anyone go to the farm/business to collect the product? Or must the user travel to collection point? How far will they travel?
- ☐ Who "owns" the product, who remains liable? Is there a formal transfer of "ownership."

What was unsure, not a given?
Pesticides/PPP Container Recycling

Looking

Back

To

1981.....

- Once collected, how is the "product" transported? Open/closed container?
- Public/Private carriage? Concerns re. previous/post cargo in that container space?
- And how is the selection process conducted for "end user" or recycler of "product?"
- What is needed known re. recycler? Or new finished product made from program collected material?
- OVERSIGHT?   Measures? Records/data?

What was unsure, not a given?
Crop Protection Container Recycling

Looking Back To 1981…..

- What is the range of materials?
- How does the user handle the "object"?
- Can user's handling improve the "value"?
- If cleanliness improves value, how to improve quality of collected product?
- How to measure/inspect (in reasonable time) the cleanliness???
- Will this testing protect environmental health?

FAST FORWARD ANSI/ASABE S596

- Mngmt: and Scope
- Prep of Product…..how to clean?
- Removal of non-recyclable components (HDPE)
- Standards (HOW TO) for inspection?
- Standards for Acceptance…minimum cleanliness?
- Mgmt of Collections

ASABE S596 (continued)

- Volume Reductions
- Transportation
- Intermediate Storage
- Processing?
- End-Use Products inc. acceptable/non-acceptable.
- Recordkeeping….the measures.

What is different about plastic film, twine?

- Perhaps…environmental health risks?
  - Affirm, explore, quantify?
- Handling…difficult without machinery.
  - Information exchange, training, research and development?
- User cleaning? Or at least contamination avoidance.
  - Improve through standards? Education?
- Inspection procedures…certainly!
  - RECOMMENDATION: Development of sampling procedure grading scale
  - visual, +/- 10% similar to Ringelmann Scale
- Is transfer of ownership necessary? Paper trail?
  - Uniform record standards.
- Guidance for transport
  - Standards
  End use?
  - Food Contact? Other consumer protections?

Sampling of International Standards

- ISO 9000 Quality Management of any Organization
- ISO 1401 Similar to ISO 9000 but standards against which organizations are assessed environmentally, flexible-production/ service
- ISO 1404 guidance explains 1401 in more detail
- ISO 14020 – 25: Environmental Labeling.
- ISO 14030 Post-production environmental assessment

MORE ….

- ISO 1440 Life Cycle Assessment
- ISO 1450 Terms and Definitions
- ISO 1462 Making Improvements to environmental impact goals.
- ISO 1463 Addendum to 14020 communications on environmental impact.
- ISO 14064 (-1, -2, -3) quantitative reporting, description of greenhouse gases, reduction/removal, validation of assertions.
- ISO 19011 Protocol for both 9000 and 14000 series

Companies that survive and thrive…

Will secure their survival particularly with ISO 19011:

- Principles of system auditing
- Guidance - audit programs
- Guidance – conduct internal/ external audits
- Guidance on competence + evaluation of auditors.