

**Atrazine Monitoring Program: Ecological Monitoring  
Meeting Between EPA (OPP, OW, ORD) and Syngenta, 7/10/03**

EPA: Stephanie Irene, Mary Frankenberry, Kevin Costello, Jim Lin, Laura Gabanski,  
Nelson Thurman [monitoring workgroup]  
Doug Urban, Russ Erikson [effects workgroup]  
Steven Bradbury  
Erik Olsen

Syngenta: Paul Hendley, Peter Hertl [monitoring workgroup]  
Juan Gonzalez [effects workgroup]  
Tom Parshley  
Janice McFarland

NOTE: This may not be a complete list, but it's the best I can recall

**Issues of agreement for the monitoring design workgroup:**

Unit of analysis for vulnerability assessment: huc10/11 watersheds

Vulnerability ranking: 80<sup>th</sup> percentile of WARP-estimated 95<sup>th</sup> percentile of concentrations

Conceptual approach for subsetting huc11s to make sure monitoring stations are geographically distributed

Need to talk w/ statisticians on where to stop subsetting and start sampling

Lay ground work to use results to extent to bigger universe

number of sampling sites dependent on complexity of sampling strata

We had a discussion as to whether the CWS sites in the AMP for drinking water and historical data are adequate to represent static water bodies [not resolved]

Q for eco effects group: What size water body are we interested in protecting?

Also need full characterization of CWS sites from Syngenta: drainage area/normal capacity for finalized list

Based on this information, the workgroup will need to make decision on whether static bodies are addressed or need to be included as a strata to be sampled

Syngenta will submit their rationale for sampling sugarcane separately at fewer sites, presented during meeting, to EPA for evaluation

General agreement on phasing the study over 3 yrs

20 sites in 2004; 15 at fixed interval & 5 with daily sampling of runoff events

No firm resolution yet what to sample:

sampling of streams & rivers at a minimum

3<sup>rd</sup> order or higher; avoid large rivers

lakes/static waters depend on analysis mentioned above

estuaries: Syngenta noted some new studies being published to help inform

Where to sample within the vulnerable watershed still needs to be fleshed out

Syngenta proposes to use USGS flow stations, official state programs where possible, but this is not a critical element for selection

need further discussion on random vs fixed station monitoring and the implications on setting up sites (cost of adding flow measurements)

Monitoring will combine daily flow data with chemical sampling

Timing of the study will start early enough to capture 1<sup>st</sup> events, continue for 3-4 mo after 50% planting

Syngenta will obtain historic and current watershed environmental and agronomic data to help understand local factors for mitigation (as needed), model development and validation

Laboratory analysis

Parent atrazine only will be analyzed using immunoassay (based on eco-effects evaluation that only parent will impact primary producers)

Immunoassay method is fully validated, approved for compliance monitoring

Ideally will use the same lab that is doing the AMP for CWS

Data requirement issues:

Results to be entered into STORET

SRRD will work on resolving data compensability issues with use of data by others for registration purposes

QA/QC

Syngenta will work to "spirit of GLP"

Need to see if any differences exist between this and OW standards

spatial data reports will include full data sets if desired (likely desired)

full GIS metadata

Extrapolation of results to other water bodies will require further discussion

To be submitted by Syngenta by August 15<sup>th</sup>:

outline protocol w/ commitment to start in 04

Sampling plan, schedule

# sites, selection process

progress report on site search process by 10/1 and 12/1

detailed report on site selection process, validation w/ full supporting data and metadata

EPA will provide:

resolution of STORET data compensation

draft of mitigation triggers and actions for 10/31 final IRED

Pending Issues:

sampling intervals

have an approach to evaluate this with CASM modeling (Juan and company)

data on amp water bodies, applicability for use in assessing impacts on static waters

triggering issues

Site sampling selections w/in hucs

Follow-up:

contact Tony Olsen, David Wells/TMDL; set up meeting to discuss sampling selection rationale

set up another meeting or conference call to discuss these issues

July 10, 2003

Utrazyme / Eco + Monitoring Groups

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