

AGRICULTURAL CHEMICALS SUBCOMMITTEE MEETING RECORD

TIME AND DATE:

10:30 AM, January 22, 2004

LOCATION:

TCEQ, Park 35, Building F, Room2210, Austin, Texas

PURPOSE OF MEETING:

The FY04 Second Quarter Meeting of the Agricultural Chemicals Subcommittee of the Texas Groundwater Protection Committee.

ATTENDEES:

AGENCIES

Texas Department of Agriculture [TDA]
Texas Commission on Environmental Quality [TCEQ]
Texas Water Development Board [TWDB]
Texas State Soil & Water Conservation Board [TSSWCB]
Texas Cooperative Extension [TCE]

REPRESENTATIVES

Steve Musick	Chair, Member, TCEQ, Austin
Ambrose Charles	Member, TDA, Austin
Radu Boghici	Member, TWDB, Austin
Bruce Lesikar	Member, TCE, College Station
Kevin Wagner	Member, TSSWCB, Temple

AGENCY STAFF

Joe Peters	TCEQ, Austin
Alan Cherepon	TCEQ, Austin
Lynne Fahlquist	USGS, Austin
Abiy Berehe	TCEQ, Austin
Michael Hare	TDA, Austin
Richard Eyster	TDA, Austin
Jeff Cunningham	TAMU/TAES, College Station

INTERESTED PARTIES

Ed Baker	Syngenta Crop Protection, Mineola
Donna Long	DLS Technologies, Inc.

MEETING SUMMARY:

I. Opening Remarks

The Chairman of the Agricultural Chemicals Subcommittee, Mr. Steve Musick (TCEQ), called the meeting to order. He welcomed everyone to the meeting, and asked the subcommittee members to introduce themselves. Two Subcommittee members were absent: Murray Walton (TSPCB), and Barry Miller (TAGD). After these preliminaries, Mr. Musick proceeded to the Task Force Reports.

II Task Force Reports

Site Selection Task Force: The Task Force Chair was represented by Radu Boghici (TWDB), who provided a brief summary of work the TWDB and cooperating entities plan to perform this fiscal year. The TWDB will continue with the cooperative monitoring program through 2004, with most work being in the High Plains, Seymour, and Blaine aquifers. The TWDB expects approximately 700 samples. They are also anticipating completion of the Trinity and any other remaining minor aquifers, as wells are available and accessible. The High Plains Underground Water Conservation District #1, The North Plains Groundwater Conservation District, and the Panhandle Groundwater Conservation District will continue cooperating in the TWDB monitoring program through sample collection in their districts in the Panhandle region. Cooperative monitoring throughout FY04 would fill in the remaining gaps in aquifer monitoring and complete the ambient screening of the state's major and minor aquifers for atrazine and metolachlor.

Education Task Force: The Task Force Chair Dr. Bruce Lesikar (TCE), summarized the presentations and research related to atrazine and cotton in the Panhandle, which Dr. Dana Porter (TCE, Lubbock) has been preparing and presenting at county-level seminars to producers in the Lubbock area. Dr. Porter included information on the pesticide water quality activities of the Subcommittee. Dr. Lesikar also mentioned other training/educational programs that will address water quality, corn and sorghum, in February. He noted the need to develop programs that will incorporate findings of the atrazine investigations for the spring and summer. The last item he mentioned was the appointing of 4 regional directors within the TCE.

III. Annual Summary Report: FY03 ACS Pesticide Monitoring

Alan Cherepon provided a presentation with audience handouts of pesticide monitoring work conducted in FY03. The material covered each of the Items listed in the FY03 Monitoring Plan, summarizing which tasks were completed and which were not, as well as changes and long-term trends in select PWS systems that were previously investigated for atrazine.

The monitoring activities included 482 wells screened for atrazine and metolachlor by immunoassay analyses, and 18 samples which were also analyzed for pesticides by laboratory method, with no detections above the MCL or HAL. The Cooperative monitoring program accounted for 431 well samples, with only five of these having atrazine detects >0.3 ppb, and only one metolachlor detect. The four remaining Cooperative wells with atrazine detects in the Panhandle were re-sampled, as

were three PWS systems East of Austin. Atrazine concentrations were lower than the previous sampling.

The TCEQ sampling accounted for 34 additional wells in 12 PWS systems. Figures depicting long-term atrazine trends were presented for each of the five investigated PWS systems, most of which have experienced a decrease or leveling off. Thirteen Hale County Airport monitoring well samples were also screened for atrazine and metolachlor by TCEQ. The recent results indicate a split in the plume into two areas of high atrazine on either side of the pump island, where the previous year's results indicate a single atrazine high area beneath the pump island.

A brief question period followed the presentation, in which there were questions pertaining to detections within the Interagency Pesticide Database (IPD), whether the screening results will be available in the TWDB database, if any seasonal affects were noted in the long-term monitoring charts, and what was meant by verified or confirmed wells. The wells with detections in the IPD, and in need of verification re-sampling, include those wells with relatively high detects of atrazine, primarily from a TDA sampling program in 1989-1991. The TWDB commented that they will probably include the atrazine and metolachlor screening results in their database. However, this will require additional discussion to determine whether this would be the best approach, and would require additional qualifiers to ensure this data isn't mis-interpreted for something other than screening data. Seasonal affects on atrazine concentrations has yet to be studied, and would require precipitation data, well pumping data, and such would need to be gathered and compared with atrazine concentrations. Verified detections indicate wells having a detect of atrazine have been re-sampled, with the second analysis also detecting atrazine, whether by immunoassay or lab analysis.

IV A. FY04 Proposed ACS Pesticide Monitoring Plan

The FY04 proposed pesticide monitoring plan was presented for adoption by the ACS. The plan is similar to the previous year's, with cooperative monitoring, PWS systems monitoring, more recent PWS detects, and confirmation re-sampling as primary tasks. Task V is different, involving assessment of other commonly used pesticides, new pesticides, and metabolites of atrazine and metolachlor, to determine whether to analyze for any of these.

Some discussion followed. The primary difference between Task II and III is that PWS systems in Task II have been re-sampled and/or investigated, while those in Task III may have only been sampled once or twice at most, and are mostly non-Panhandle sites. The sites in Task III are also of lower priority due to lower concentrations of atrazine, but high enough to warrant re-sampling. Comments and discussion were primarily on Task V. Propazine is no longer registered or used, and much of it was likely mis-applied on cotton (the label use was for grain sorghum). The question was made as to why analyze for this at all. Mr. Cherepon pointed out that it has been detected in most of the samples that have atrazine detects in the Panhandle, and is one of the pesticides that is cross-reactive with atrazine in the immunoassay analysis. The new samples would provide the immunoassay screening program a better understanding for what percentage of the immunoassay detects are from parent atrazine, metabolites, and other triazines, such as propazine. The

Subcommittee decided to only analyze for propazine in wells where higher concentrations are known or expected, based upon previous samples or immunoassay results.

Prometon and diuron are two other pesticides that have been detected more often in groundwater than other pesticides, except for atrazine, and possibly metolachlor. These two pesticides are proposed as an option for analysis this fiscal year. Again, only samples with known or suspected detects would be analyzed. It was suggested that other high use pesticides in Texas be looked at on a region to region basis rather than analyze all samples for the same ones. Mr. Cherepon noted that there are certain crops that are more wide-spread across the state, such as corn, cotton, sorghum, and possibly wheat, and that these would likely warrant analyses of other potential or newer pesticides on a more widespread basis. The metabolite analyses for atrazine and metolachlor is considered important since some of them are determined to have the same health/environmental concerns as the parent compound, they have been detected in numerous samples by the USGS (in very low concentrations), are cross-reactive in the atrazine immunoassay analysis, could be utilized for relative age-dating of releases (% parent vs % metabolites), and studies indicate metolachlor degrades quickly, and if the metabolites are not analyzed for, most of the metolachlor may go undetected and missed in the samples.

The Chair proposed the plan be adopted, with the SSTF fine-tuning the plan as needed, by prioritizing regions and wells for cooperative monitoring in Task I, as well as looking into Task V to better define/narrow down which additional pesticides would be analyzed for, and in which situations. The Subcommittee adopted the plan, with these stipulations.

IV B. Review of Agricultural Chemicals Subcommittee Charge

As part of the Texas Groundwater Protection Committee's strategy implementation effort of reviewing charges and the work of the various subcommittees, the charge for the ACS was scheduled for review to determine whether initial efforts have reached completion, or if any changes are necessary. The draft charge contains the purpose, background, and accomplishments of the ACS, as well as expected results, scope and boundaries, reporting, and an open-ended completion date based on the program's needs.

Mr. Musick mentioned some key issues: such as a close review of expected results, as the TGPC will hold the Subcommittee to these; the format; and, the scope and boundaries which are similar to those of the other Subcommittees. The members should consider if anything (significant tasks or responsibilities were left out and what changes, if any, need to be made. Since there wasn't adequate time to review this prior to the meeting, the Chair asked the Subcommittee to review the draft document, and to provide suggestions or changes by e-mail for incorporation prior to the next meeting. A revised charge will be circulated to subcommittee members for adoption and presentation to the TGPC at their next meeting.

Dr. Jones (TAES) commented that the Farm Service Agency (FSA) is presently digitizing maps of crop production for the state, which will be in GIS format. The program could be utilized to indicate present and historical crop production. He suggested this FSA program as a possible presentation

for one of the next ACS meetings.

IV C. Research Proposals to the Groundwater Research Subcommittee

There was little time to adequately address this item. The Chair commented that the ACS had identified some needs from the Panhandle PWS investigations, and that funding should be better defined. He asked the Subcommittee to review the document, e-mail suggestions to the TCEQ, and the revised proposal would be presented at the next meeting for adoption and presentation to the Groundwater Research Subcommittee.

V. Information Exchange

Brief Update on the Atrazine Interim Re-registration Eligibility Decision (iRED) - Comment Period till February 2004

Mr. Cherepon provided handouts summarizing a recent update requesting public comments on the revised iRED, for which the comment period ends 2/5/04. He summarized that the revisions resulted from a Natural Resources Defense Council consent decree with the EPA to address certain issues, presented in the handout. The consent decree essentially requires additional studies to determine whether atrazine, at specific concentrations, will affect human health as a carcinogen, birth and development processes, sexual trait/endochrinological/gonadal development. Further, action levels must be coordinated with the TMDL program and be consistent with other federal and state programs. Also, a recent lawsuit was brought against the EPA by the NRDC for holding closed meetings with pesticide manufacturers on the iRED program. The general public was not notified of or invited to participate in these meetings, which the NRDC claims is not only illegal, but indicates the manufacturers are being given preferential treatment and bias in developing national programs.

Additional information exchange was provided by several members or attendees. Dr. Charles (TDA) mentioned that a new program is underway for generating satellite photos to correspond with crop surveys, and has a \$12 million budget. This corresponds with the FSA crop maps Dr. Jones mentioned earlier in the meeting.

Lynne Fahlquist (USGS) summarized the High Plains aquifer symposium held in Lubbock on 12/10/03. She briefly noted the high points, such as irrigated and non-irrigated field studies, which indicate little if any recharge and migration of surface materials to the groundwater in non-irrigated areas. She also mentioned relative age-dating of chemical releases and water migration from surface to groundwater, using percentage of atrazine metabolites. The age-dating and chemical migration provide strong evidence for quick (possibly 15 years) migration of surface water to the groundwater via preferential pathways and wells.

Dr. Jones introduced a new professor in his program at TAMU, Jeff Cunningham. Dr. Cunningham's areas of interest include chlorinated solvents, pesticides, and chemical migration to groundwater. Another new professor is Christine Morgan, Dr. Morgan's areas of interest include the migration

of water/subflow through cracks and other pathways by applying modeling of chemical movement in field studies. She is interested in studying the connectivity of surface water and groundwater, and may be able to conduct such a study at the Hale County Airport site.

V. Public Comments

None provided.

VI. Announcements

Steve Musick announced that the Texas Groundwater Association of Water Well Drillers next annual meeting will be in Waco the week of 1/27/04.

Several national-level meetings (SFIREG, etc.) related to agriculture/pesticide issues will be held in the Washington D.C. area in the next month or two.

The TWDB will be co-hosting a conference on aquifers of the Edwards Plateau in San Angelo on 2/9/04.

The decision was made by the Texas Groundwater Protection Committee that the FY04 third quarter meeting of the Agricultural Chemicals Subcommittee will take place on 04/15/04 at 10:30 a.m., in TCEQ Building F, Conference Room 2210.

VII. Adjournment

Recorded and transcribed by Alan Cherepon.

Attachments

FY03 Pesticide Monitoring Summary Presentation and Report

FY04 Proposed Pesticide Monitoring Plan

Draft Texas Groundwater Protection Committee Charge to the Agricultural Chemicals Subcommittee

Draft Research Proposals for the Groundwater Research Subcommittee

Brief Update on the Atrazine iRED