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## GM Crops and Pesticides on Kaua'i

A Joint fact Finding Study Group

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The issue of genetically modified (GM) agricultural production has generated many questions and considerable emotion. One of the debates focuses on the possible adverse health and environmental impacts from pesticides used in conjunction with growing GM crops. Sorting out facts – what we know and can say with reasonable confidence, what we don't know, and what we might reasonably need to know in the future – is challenging, but not impossible.

Through a partnership between the Hawai'i State Department of Agriculture (HDOA) and County of Kaua'i, Peter S. Adler and members of *The ACCORD3.0 Network* have been asked by the Hawaii State Department of Agriculture and Kaua'i Mayor Bernard Carvalho to conduct a joint fact finding pilot project on the Island of Kaua'i. The project will commence approximately January 1, 2015 and is expected to conclude within a year of its official start. If the pilot project is successful, and where there is interest, it may be replicated in other counties or on other Islands on similar or other pressing issues.

## 1. *What is Joint Fact Finding?*

Joint Fact Finding (JFF) is an analytic deliberation process designed to gather and interpret facts pertinent to a specific problem. It does this in a disciplined manner and through courteous but rigorous evidence-based debate. The process uses a carefully designed working group structure made up of experts who may have diverse political and policy opinions but are willing to engage in robust and healthy factual discussions.

The overall goals of any JFF are to illuminate the factual assumptions behind a controversy, map areas of factual agreement that all parties can respect, put those areas in a proper context, and help inform policy. A JFF may also identify specific questions and issues to be further assessed in separate studies. Tailored to accommodate specific circumstances, JFF may be conducted under or embedded within other processes such as Technical Advisory Groups, Stakeholder Panels, Study Groups, and Policy Dialogues. Additional information is available at <http://accord3.com/pg84.cfm>.

## 2. *Why is this necessary?*

The practice of GM agriculture in Hawaii has raised important policy and regulatory questions. While there are many debates, one focuses on the use of pesticides and potential health and environmental harms. Some say there are none, while others believe differently, and many simply do not have enough



*Cartoon by John Pritchett, Honolulu Civil Beat, Aug. 22.2013*

information or facts on which to base an opinion. Thus far, debates over pesticides and other related issues have been pursued primarily through litigation, legislative proposals, and political lobbying. Missing from the picture have been safe spaces where people with knowledge and goodwill who may disagree with each other can meet review, discuss, interpret evidence and deliberate. The JFF will provide a forum for rigorous consideration, evidence-based debate, and collective fact-finding.

## 3. *What will this particular effort do?*

Based on an examination of available literature and data sources, the JFF group will, to the best of its abilities, undertake a broad examination of where GM and other production scale crops are grown on Kaua'i, the historic and current use of pesticides on Kaua'i, the prevalence of acute and chronic health conditions occurring on Kaua'i at levels that are above state- or nation-wide rates, and any evidence of environmental contamination that can reasonably and empirically be associated with the use of pesticides.<sup>i</sup> The JFF group may consult with recognized experts in specific technical and policy areas pertinent to the use of pesticides and their impacts but the work will be specific to Kaua'i.

Through this approach, the JFF group will develop the highest possible consensus-based recommendations on priorities for future study, define the scope of such studies and propose methodologies for improving the monitoring of any health or environmental impacts associated with pesticide use on Kaua'i. It may also choose to make other recommendations that will advance wise and practical policy.

#### ***4. Will the JFF group produce original research?***

No. The project will collect, summarize, and discuss existing evidence.

#### ***5. Who will be responsible for independently convening, facilitating and reporting on the results of the JFF group?***

Peter S. Adler, PhD will serve as Project Director. He and his project team will take no political positions for or against GMO and will operate with substantive independence. Members of the project team will include:

- Mr. Keith Mattson who will be responsible for gathering available technical information on agricultural land use and pesticides.
- Dr. Bruce Anderson PhD who will be responsible for gathering available public health and epidemiology information.
- Ms. Catherine Nyberg who will provide on-island project support for the JFF meetings.
- Ms. Katie Ranney who will manage materials posted to the project website.

- Ms. Christina Sablan who will gather available information on environmental contamination and pollution on Kaua'i and also serve as project documentarian.
- Mr. Ken Schmidt who will provide mapping and Geographic Information Systems (GIS) expertise.

Brief bios are at Annex-1.

## ***6. What expertise will be represented on the JFF group itself and who will select them?***

To the greatest extent possible, the group will be composed of not fewer than nine individuals from Kaua'i who have knowledge of Kaua'i and good backgrounds in any of the following: agriculture, environmental health, epidemiology, toxicology, biostatistics, medicine, or land-based practices such as farming, fishing, hunting, or gathering. In addition to knowledge and experience, the JFF process requires people who:

- Will commit the time and energy needed to the project.
- May have pro- or anti-GMO leanings but are willing to examine data and evidence.
- Are willing to read, study and learn.
- Can exercise self-restraint and respect in working groups, especially to those who may hold different views.
- Do homework between meetings if needed.
- Work towards the common goals of the project.

Selection of the JFF members will be done by Dr. Adler with full consideration of diverse qualified nominees and with the advice of three advisers who themselves will not be members of the JFF group. The three selection advisers are Dr. Helen Cox, Chancellor, Kaua'i Community College; Dr. Mehana D. B. Blach Vaughn, Assistant Professor, University of Hawaii at Mānoa, Department of Natural Resources & Environmental Management, College of Tropical Agriculture & Human Resources; and Diane Zachary, President and CEO, Kaua'i Planning & Action Alliance. The JFF process will also make use of other technical experts from Kaua'i and elsewhere as needed.

## ***6. How will the project work?***

## **Preliminary Work by the Project Team**

Before the process commences, the Project Director and his team will assemble a preliminary inventory of existing pertinent studies and other baseline information that will be expanded and interpreted once meetings of the JFF group commence. This inventory of research will be presented in draft form for consideration by the JFF group. It will then be further refined during the JFF process. Simultaneously, interviews with 15-25 people will be conducted on Kaua'i to identify (a) potential specific pesticide-related questions to be flagged for possible study, and (b) the potential expertise that is available on Kaua'i and needed for an effective JFF Group.

## **Meetings**

While the process will remain flexible, the JFF group itself will convene for an anticipated set of 8 meetings to be held over a 12-month period with further information gathering and teleconferences taking place between meetings. The meetings will commence as early in 2015 as practicable. Members of the group will be volunteers but will receive a small stipend for each meeting they attend to help defray incidentals and local travel costs.

## **Disclosure and Civility**

All members of the group, as well as the project team, will be required to disclose financial or working relationships that could be perceived as actual or possible conflicts of interest or indications of strong bias. Conflicts of interest will not automatically disqualify someone but must be openly declared so as to ensure a reasonable balance of perspectives.

The group will operate under a signed "Charter of Commitments" that will constitute the JFF's "Rules of the Road" covering decision making and meeting protocols. Key among these rules will be hard commitments to civility and confidentiality within the working group and to maintain an open mind to review all pertinent and high quality evidence.

## ***7. How will the public know what is going on?***

In two ways. First, an open-access project website will be created for information that is gathered along the way, with periodic project updates. The website will be at <http://www.accord3.com/pg1000.cfm>. Second, at least two of the anticipated eight meetings will welcome respectful comments and questions from the public. One will be a technical and scientific discussion with invited experts. The other public

meeting will be when a draft report has been created. Both meetings will be publicized through the project website and other means.

### ***8. What can be expected in the group's final report?***

The final report will include the project's background, a description of the JFF group's formation, a chronology of its deliberations, and the JFF group's findings and recommendations. The report and its attachments will include:

- a. A general bibliography of peer reviewed studies and credible scientific and technical reports pertinent to GM crop production, pesticide use and associated health and environmental impacts on Kaua'i.
- b. A summary and/or maps with the best available data on locations of Kaua'i lands in crop production, including those in GM crop production.
- c. A summary of the best available data on historic and current pesticide use on GM and other larger scale cultivations on Kaua'i.
- d. A summary of the best available data on the incidence and prevalence of acute and chronic diseases and injuries on Kaua'i that may be associated with pesticide use.
- e. A summary of studies of environmental pollution and contamination related to pesticide use on Kaua'i.
- f. A list of prioritized future research questions to further examine possible environmental and health impacts that may be associated with the pesticides used in GM crop production (and, to the extent possible, by other major pesticide users), the proposed general scope of future studies, prospective sponsors, and potential funding sources for such studies.
- g. Such other practical recommendations as the group finds warranted from its factual analysis.

### ***9. How much will the JFF project cost and who is paying for it?***

The entire project will cost \$100,000. Half comes from the Hawai'i State Department of Agriculture (HDOA) and half from the County of Kaua'i through the Office of

Economic Development. The contract is administered through HDOA but will be independently implemented and managed by Dr. Adler and the project team.

***10. How can persons submit (a) names of qualified individuals to be considered for JFF membership and (b) information on relevant studies or other data that the JFF group should consider?***

Once the project officially starts and the website has been populated with initial documents, the public is cordially invited to submit:

- a. The names of persons who know the Island's communities and landscapes and/or have pertinent backgrounds, experience or detailed understandings of agriculture, environmental health, epidemiology, toxicology, biostatistics, medicine, public health or other related disciplines. To be considered, nominations must be accompanied by (i) an indication that they may actually be willing to serve; (ii) contact information and (iii) a biographical profile or curriculum vitae for the person nominated.
- b. Citations and references on (i) relevant studies, preferably peer-reviewed articles published in major scientific journals and (ii) data or possible data-sources on Kaua'i-specific agricultural land use, pesticide use, health impacts, and environmental pollution and contamination that could be linked to GM pesticides.

Persons interested in submitting either of the above should check the project website at <http://www.accord3.com/pg1000.cfm>.

## Annex-1

### Project Team Biographies

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**Peter S. Adler, PhD** is a planner, mediator, facilitator and a principal in **ACCORD3.0**, a professional network of people specializing in foresight, strategy, and cooperative problem solving. Adler has worked in the government, business and NGO sectors and teaches advanced negotiation courses in the Department of Urban and Planning at the University of Hawaii. Prior executive experience includes nine years as President and CEO of The Keystone Center ([www.keystone.org](http://www.keystone.org)), Executive Director of the Hawaii Justice Foundation, and founding Director of the Hawaii Supreme Court's Center for Alternative Dispute Resolution. He is the author of three books and numerous academic and popular articles. He resides in Honolulu.

**Bruce Anderson, Ph.D.**, retired from the State of Hawaii in December 2013 after serving as President and Chief Executive Officer (PCEO) of Hawai'i Health Systems Corporation (HHSC), which includes the twelve public health hospitals and outpatient services in Hawaii. He was previously Director of Health of the State Department of Health and Deputy Director for Environmental Health. Bruce has over 20 years of experience in managing health and environmental protection programs and in dealing with complex environmental policy and planning issues in Hawai'i. He was also President of Oceanic Institute, on Oahu, where he led a team of over 70 scientists, researchers and support staff in developing and transferring new aquaculture technologies to the private sector. He continues to be involved in addressing health and environmental concerns through his consulting business, Bruce Anderson Consulting, LLC. Bruce was born and raised in Hawai'i. He went to Punahou School on Oahu, Colorado College and received his Master's in Public Health from Yale University and a Ph.D. in biomedical sciences from the University of Hawai'i. He enjoys saltwater fly-fishing and hiking, riding horses and gardening with his wife, Debbie, on their ranch on the Big Island.

**Keith Mattson, MCP** is a member of The ACCORD3.0 professional network and President of Keith Mattson LLC, a Honolulu consulting firm specializing in planning and policy analysis. His recent work has focused on Transit Oriented Development (TOD) planning along the future HART rapid transit line in Honolulu and Joint Fact Finding processes to resolve complex issues and debates at neighborhood and county levels. Prior to launching his consulting firm in November 2013, he worked at the University of Hawaii (UH) for 17 years as a laboratory development project manager and economic development program director. His work for UH included managing a National Institutes of Health grant to build a new biological research



laboratory; creating and administering new grant programs to support UH faculty research and teaching. Prior to moving to Hawaii in 1997, he held senior urban and regional planning positions in California, Colorado, and Indonesia.

**Kathryn Ranney** will soon graduate from UH Manoa with a Masters degree in Communication and a Graduate Certificate in Conflict Resolution. Currently employed at the Matsunaga Institute for Peace, Katie also works freelance on independent facilitation projects ranging from strategic planning to collaborative workshops. Her interests include incorporating new technology in group work, intercultural communication, swing dancing, and cooking.

**Catherine Nyberg** graduated with a degree in Business Management from the University of Colorado at Boulder. Shortly after graduating, she moved to Kaua'i to pursue a career in Hospitality Management. After 5 years in the hotel industry, Catherine decided to switch gears and work in conflict resolution. She has assisted on other projects and brings organizational and problem solving skills.

**Christina Sablan** is a graduate student at the University of Hawai'i at Manoa, where she is pursuing a master's degree in urban and regional planning as well as a graduate certificate in conflict resolution. Her research interests include community planning, land use management, and civic engagement. She recently served as a graduate student assistant for a JFF workshop convened by Dr. Adler in Honolulu in March 2014, and spent the past year providing logistical and research support for the New Directions Committee of the Association for Conflict Resolution's Environmental Public Policy Section. Prior to graduate school, she worked as a journalist, nonprofit program manager, and environmental educator on Saipan in the Northern Mariana Islands. She is also a former member of the Northern Mariana Islands legislature.

**Ken Schmidt** has over 30 years of experience in the application of mapping and geospatial technologies that create location based information products for use by government and private businesses. He provides expertise in the planning, design, implementation, and deployment of geographically based technology systems for an organization's operations and services. He has managed and administered the City and County of Honolulu's Geographic and Land Information System (GIS/LIS), and the construction permitting systems. In 2012, Ken traveled to Ukraine as part of a U.S. State Department American Council of International Education Legislative Fellows program to help promote the value of geospatial technologies in managing local government functions and operations. Collaborative mapping and educating

others on the benefits and possibilities of using geospatial data and technology is a primary objective in all of his efforts.

## END NOTES

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<sup>i</sup> In its examination of pesticide use, the JFF group will pay particular attention to, but not limit itself to Atrazine, Bifenthrin, Chlorpyrifos, Clothianidin, Glyphosate, Paraquat, 2-4-Dichlorophenoxyacetic acid, Neonicotinoids and other chemical compounds that constitute restricted use pesticides (RUPs) as well as other pesticides that are used in high volumes. To the greatest extent possible, and for comparison purposes, the effort will also look at other major users of pesticides on Kaua'i, including but not limited to golf courses, resorts and other commercial users, transportation agencies, public lands management, and general household usage where data are available.

In its examination of health impacts, the JFF group will review the best available data on the prevalence or incidence of acute and chronic health conditions occurring on Kaua'i at levels that are above state- or nation-wide rates, including cancers, birth defects, asthma, autism and other health conditions that can be identified through existing and available health surveillance data. Data sources will include the Hawai'i Tumor Registry, the Hawai'i Birth Defects Registry, the Hawai'i State Department of Health Pesticide Illness and Injury Reporting system, reported hospital admissions on Kaua'i, and other databases or clinical records that may be made available to the JFF group.