

**Biosecurity Forum**  
**Pacific Entomology Conference, Honolulu, Hawai'i**  
**April 3, 2015**

**Panelists:**

Gregg Goodman, USDA APHIS PPQ, Maryland  
Bob Dowell, California Department of Agriculture  
Neil Reimer, Hawaii Department of Agriculture  
Roland Quintugua, University of Guam  
Aubrey Moore, University of Guam  
Gregg Hodges, Florida Department of Agriculture and Consumer Sciences

**Moderators:**

Rob Hauff, Department of Land and Natural Resources  
Joshua Atwood, Department of Land and Natural Resources and Hawaii Invasive Species Council

**Recorder:** Christy Martin, Coordinating Group on Alien Pest Species

**Organizer:** Darcy Oishi, Hawai'i Department of Agriculture; supported in part through a grant to CGAPS from the Hau'oli Mau Loa Foundation. Mahalo!

**Pre-Border**

**1. How does your state/agency define high risk?**

Gregg: High risk is an organism that is non-native, a plant pest or pathogen with significant promise of damage. We have different tiers of risk level for containment for species of risk. Our "high risk" descriptions are listed on our website.

Neil: We focus not just protecting agriculture, but we also are tasked with those that may become a pest of the environment, public health (in cooperation with HDOH); and something that does not occur in Hawai'i. Does it occur in Hawai'i? If NKO, then we tag as a potentially high risk pest, then we try to do a risk assessment.

Josh: If you have to determine whether or not a pest is present in Hawai'i, do you assume is it assumed to be present and the burden of proof is on showing it is not here, or is it assumed to be absent?

Neil: If we find no record of it being here, we assume that is not here. It is actually one of our weaknesses right now. We used to have a very good survey program, but through RIFs in 2009, we have severely diminished capacity. As people are involved in CAPS, we are looking for pests, but that survey is mostly looking for pests of the mainland. We also rely on public input (press releases, diagnostics program, pest control operators, etc.). I think we get a pretty good assessment of what's here, but sometimes we get a little blindsided.

Greg: We do this too in Florida. We also reach out to the University system, we cooperate with Master Gardeners and lay people to look for things. We have a pretty good network of folks looking for things.

Aubrey: Guam is a small island, but we are at highest risk, not just due to position in the Pacific, and our lack of capacity for rapid response, but also because some of our main predators have been decimated due to BTS. Pests from US are treated differently than foreign pests. This is a big problem. This must be addressed at the policy level.

Frank Howarth: We used to be much more pro-active. We kept lists of pests on other islands or areas and we had some pest alerts and response plans. It is good to keep the reactive part, but it would be good to make sure we develop a pro-active program.

## **2. What's the value of having target lists for pre-border when things are coming in that are not even described?**

Bob: In CA, we have a very complicated system of rating, A, B, and C (a=we don't want; b=incipient, and c= already here). We spent decades developing the list, but anything that wasn't already present was an A. But we ended up with a gigantic list that is meaningless. The lists aren't always based on the latest science or information. Example: Olive flies. What we didn't know was that one of the most common interceptions from foreign sources was olive flies. We also didn't realize that we had mostly one variety of olive, and that people were trying to get new varieties all the time. Lists tend to be historic, based on fear, and insufficient information on what may happen if it arrives (nor the probability of it arriving). Example: light brown apple moth, an actionable pest. USDA did due diligence in the beginning, identifying it as an actionable pest and a plan to respond if it showed up, period. When it showed up, we went after it, but the assumption was that it was several hundred square miles of infestation, but it turns out that by the time the response was underway, it was several thousand square miles. You have to be careful about plans and responses, prioritizing work to those that are going to have the greatest impact.

Gregg: I would say from the Federal perspective, we use the lists that states develop to do our risk assessments for action. Your field research and your risk assessments are helpful for permitting, so that we can flag agricultural concerns.

Aubrey: Most of our pests are not predictable. However, our short list is whatever is becoming a pest in Hawai'i. One thing that would be very helpful is an interception list from federal and state, so we know what is moving, from where. One example of this is that CRB were intercepted by CBP or APHIS, there were interceptions in Hawai'i before They are not regularly available to me as an entomologist with the University.

Gregg: I would say that we can follow up with that, but there are some things that cannot be shared.

Bob: It is a large and ongoing problem. For years we have not been able to get the information to be able to make decisions. We couldn't get the raw data, we couldn't get the summary.

Further, it is even more difficult for some things, such as the “fruit fly larvae”, which is not identified down to species.

Roland: As we identify gaps in information, and lack of funding, I think we are seeing more communication and relationships. In working with the Fed govt. on CRB, it has bridged some gaps. But things are improving. We know some of the limited capacity of USDA APHIS, and we are trying to help. With the RBP, everything came together in a jumble. So the data that was provided was not perfect, but it identifies real gaps in data, which are opportunities.

Dorothy Alontaga: USDA APHIS has a system that is improving, where they try to get a report on recent interceptions to the State Plant Health Directors. It would be helpful to get the National Plant Board onboard with needs of each state. The State Plant Health Directors need to communicate what is needed (the type of information, and a mechanism for communicating it). The information is there, and it is a shame that the information isn't made available to you (the panelists). When you get the information that a pest has consistently been intercepted, go to the SPUD and request the interceptions for the pest in question. As for the rough ID, when a pest has not been added into the system, then the scientific name isn't there. Also, when we get busy or have high volume, we need a fast determination so we don't list to species (which is important). This is also important to point out to the NPB, and we need to make sure they are in the interception system by species.

Bob: One of the diagnostics is DNA, and lists are imperfect (as we've discussed, some pests are pests nowhere else). You need to know what you know, but you also need to know what you don't know. It would be difficult to get the NPB to agree to each of the requests. I agree, just getting access to the information is part one, but there will be 50 different opinions on what is needed.

Dorothy: But we live in an age where that is possible and available. I think there is a lot of potential.

### **3. Does the Federal view of pests (actionable/reportable pests) work for you? If not, what should replace that?**

Neil: One thing that has been positive has been USDA conferring with the states whenever they evaluate pests on their lists. To date, they have followed our input on what should be on the actionable list or removed from the list. From what I understand, that is not the same with other states. It seems that Hawai'i, being separate and unique, it needs to be taken into consideration. But there is that disconnect between what we consider pest, and what they consider a pest. There needs to be a way to meld or harmonize the lists.

Bob: CA views Hawai'i as a foreign country, and vice versa. When we made a pest list, we saw that most of the pests arrived in CA from other states. There is a view that they stage in HI, before they come to CA. The biggest difference is that if it is an actionable pest, then we have help. The main purpose of the list is not to tell us what we should be looking for, but so that we can make sure we have help when it arrives.

Gregg: I know we've had bi-weekly meetings for pests, to discuss the pests of the day. Our communications have been with the tops, so I don't know how better to improve communications.

Is there a way that you folks can come together and agree on and provide a synthesis to address true high-risk species?

Gregg: It's true, because we are an emergency response agency, we must do better at planning.

Bob: We have two conflicting ideas. Agriculture is more reactive, they are conservative. If we look at the ecological side, we find ourselves being more pro-active. We are split by industry's culture and concerns, and the need to be more pro-active.

Roland: When HI found LFA on the Big Island, USDA did not step in to help, nor did they on Guam, because it is in Florida.

Josh: When you have the ability to regulate interstate commerce, why are actionable pests identified at the national level?

Bob: That is a political problem and an example of communication breakdown. When a discrepancy like this comes up, there may be do reason, so it must be communicated to us.

Josh (restated): How would you recommend that we tweak or approach this to better deal with issues like this?

Bob: I would recommend you take this issue to the NPB to present it as a more unified view and question. The USDA and HDOA leaders must discuss and approach to discuss.

Sheri Smith: We had two similar CA species issues. I think the discussion is whether it is an ag crop or not an ag crop. This is a big issue, as there are a whole bunch of pests that can really harm forest species, environmental pests. The USDA Forest Service is getting ready to publish a risk assessment for potential pests of key forest species of Hawai'i, but they are non-ag related crops and APHIS would probably not provide any assistance. For our CA oak pests, they were not viewed as ag pests so we couldn't get funds.

Aubrey: Asian cycad scale was found in HI, so we started watching in Guam. When it arrived in Guam, it hit the most populous plant in Guam and we still have . EGW was a huge problem here, but when it arrived on Guam, we welcomed it because we had fruit piercing moth that was using ornamental Erythrina trees.

Bob: There is a dichotomy: for things that are in HI that are not in the US, you are foreign. When the US has a pest that is not in HI, you are part of the US. It has to go one way, not both. In many regards, the best thing for Hawai'i is to be treated separate.

## **Border**

### **1. How do you define the border?**

Bob: Which one? The legal one?

Roland: What's a border?

Neil: My view our boarder is where you have legal authority to take action. Due to transportation, threats are coming in from all over, so our boarders are where we can operate. But we can also do pre-boarder work before things arrive.

Gregg: The boarder is flexible. CBP has the authority to go after a commodity before (pre-clearance), to post clearance, and even trans-shipped things.

Aubrey: We don't have CBP inspectors, they are all done with Guam. Sometimes we are considered domestic, sometimes foreign. I don't understand it.

Gregg: we do have several standards for the different areas.

Frank: Pest know no boarders, and a strategy for dealing with this is to harmonize pest lists or identify ways to deal with the pests regardless of legal borders.

Bob: Hawai'i has an ecological boarder that they share with Guam and Florida. They may be disparate geographically, but we need to try to work and think within ecological boarders. It raises a lot of issues when you look at the geo-political realm.

## **2. How do you ensure you have enough inspection?**

Roland: We seem to be trying to do more on sustainability, but others are trying to ensure commerce and open trade. So the easiest way is to improve sustainability and stop importing so much stuff.

The 2% of containers are inspected, and rates have dropped when inspectors moved from USDA to CBP. So 2% of containers being inspected. There is a 90% error rate, so do we really want to talk about more inspection?

Roland: We have to start thinking more about commerce.

Gregg: With regards to 2%, we are moving towards improving risk targeting and confidence in inspection. Potentially there are things we could miss, but this goes back to the shipper, and they are responsible for shipping lean things. We must move collaborations beyond the port to the shippers and beyond.

Bob: Longbeach there are minutes between containers moving through our port. Fed. govt preempts us from international inspection, so a better question is that are we looking at an 18-19 C solution to a 21 century problem?

Roland: Yes, we are. There are all sorts of inspection systems for finding bombs and illegal immigrants, but they won't find beetles.

Neil: Yes, it is antiquated. I agree with the masses of stuff moving and inability to inspect. Even if we could do 100% inspection, we will miss stuff. What we have tried to do is risk assessments to determine what the high-risk commodities are and what should be inspected. We also are working more on trying to clean things before they are imported. We also need deterrents to keep people from trying to smuggle.

Aubrey: Kahului Airport Risk Assessment (KARA) showed 1 new NKO species per day, at Kahului, so that's what I use to estimate how many species are entering Guam per day. We used to have Oriental fruit fly on Guam that was eradicated in the 1960s. We prohibit entry of hosts so that we don't get more. We could have a very simple trap in a container to detect things before shipment. We have a prototype (box, sticky trap, with light).

Darek: All the countries do this: Ship on plastic pallet or pay for fumigation. Why don't we require plastic pallets and traps? All of Europe do this, why can't we?

Gregg: We partnered with industry to use a HACCP type method to ship clean seeds. This is voluntary, and collaborative, it extends everyone's capacity.

There is an unaccounted for cost of trade. We inspect 100% of everything (we deseed pumpkins), it is extremely expensive, and we do a huge pre-boarder emphasis. Barrow Island is now about to move away from this system because we are transitioning to fumigation (ethyl formite w/ nitrogen, or just nitrogen) for everything. Until policymakers account for the cost of hitchhikers, and include human health, environment, and agriculture in our decision making systems, then we need to be doing these traps and systems.

Greg: In FL, we comment on federal register things, but it may be undoable for islands. It may be more business driven.

Gregg: Yes, at times we are counter productive. We are charged with aiding trade, but also protecting American agriculture.

## **Rapid Response, Control, & Eradication**

### **1. How and when do you consider a species to be established?**

Bob: This is defined as something that enters and you can "regularly find" it within your jurisdiction. In CA it means something much different than the regulatory community—international plant protection has an official definition. Neither CA or FL have Med fly established, but we regularly pick I up. For most of us for action is a trigger that presumes there could be a breeding condition and will persist if nothing is done.

Neil: we use a qualifying term, "incipient". We have an incipient population of CRB that we are working on eradicating. But it is semantics. I think of "established" as a permanent condition.

Bob: When you are talking about moving product, when you have an "established" population of a pest, then there will be quarantine regulations set up to move the host material. Established

is a legal term that means that you will have to do things before you move product (can you facilitate commerce in the safest possible manner that the recipient feels is acceptable).

Greg: We are deal with Giant African Snail since 2011. We are still working in a lot of areas to eradicate this pest, or we will not be able to move product.

Bob: We spent 30 years trying to eradicate citrus white fly. There is no scientific equation. As long as the desire/energy, money, and potential of success (or cost of failure) and politics remains, we generally can choose eradication.

Gregg: From the federal perspective, we will put in for an eradication program, “establishment” is the declaration of failure and the beginning of quarantine measures.

Roland: What is the longest eradication program?

Stuart: 30-40 years. Several decades.

Gregg: ALB is coming on 25 years.

Roland: Eradication currently is highly improbably on Guam, but if we go back to your efforts to get better tools (like the beetle virus), does that mean we should stick with it, or will it be abandoned?

Aubrey: I think we have learned that eradication takes a long time. And we have better tools all the time.

Bob: If funding is cut off, then Guam is out of luck.

Aubrey: Our early detection is pretty good, but our rapid response is really bad. There is no capacity to do this, nor is there any funding to do the work.

Bob: Citrus blackfly in Florida in 1970s, we released biocontrol agents during treatment that were working well. The Fed.

## **2. What kind of authorities and emergency powers do you have to respond? How quickly can they be put in place?**

Bob: In CA the secretary of F&A has the authority to set up quarantine and conduct an eradication program. We have the mandate to do this, we go through the chain of command for the secretary to make a proclamation, which get the Gov. in line. There is a public comment period and have to go through the LAO’s office. If we are working with USDA, they must do an EA with a FONSI. Quarantines are quick and easy. Quarantine with eradication generally takes a few days to a few weeks.

Greg: We have the same way, we can move fairly rapidly.

Roland: Guam DOA has the authority, and for CRB there was a declaration, but no funding. But we are now working to revamp the biosecurity funding, policy and enforcement.

Gregg: Under the Plant Protection Act, we have the authority to act, but we work with each state partners to do this.

Neil: We have the authority and ability to do this through 1-year Emergency or Interim rules, to put a restriction on movement of commodities out of an area, but it takes 3 months to do this process.

Pat: At what point can you get a court order for access? Does the interim rule help you do what you need to do?

Neil: If there is a quarantine, then we can go to a court to get access to a property. What we tend to do is work on cooperative work, but there are always non-compliance. We have an issue where a property has LFA and they are not granting access. We tried to set up a temporary restraining order to keep them from moving materials, but it was denied.

Pat: Are there any pests on the list for things that have not shown up yet?

Darcy: A few, like Africanized Honey Bees. The list was generated in the early 90's, and only added 3 recently. At the time, we were proactive, and I think it helped, but we should revisit.

Stuart: Remind me of a few things: how long does it take to get a quarantine, and when it has spread, how long does it take to expand?

Bob: It takes a few days. We have a longstanding relationship with the AG's office and the LAO, then we go through the other compliance offices, but these are all established things. For treatment, it depends on how fast, and what we're doing, but we have done this so often that the steps are well defined and used.

### **3. What authorities do you have when you have a single type of business that continues to move a pest?**

Bob: In CA, we have the California Nursery Act, and we can stop sale when it does not meet cleanliness standards. We can stop them from selling, and require them to clean it up. Because the regulations.

Christy: We work collaboratively with the nurseries to inspect and treat, and they call to report pests, how do you regulate and get around this?

Bob: Our industry does not like us. We met with the industry and they start to see our side. If you come in draconian, then yes, you'll have problems. But you need to explain the issue, and get them treatment options, but yes, you will have people moving materials they shouldn't. They work much better with us now.

Ross: On Guam, we have the system that you describe, but when it doesn't work we go through the Mayors. It is the same with the traditional Chiefs, like in Palau and Samoa.

Roland: I am with the Cooperative Extension Service, so we have established networks to get things done. We have cultivated the political relationships to get things done.

Pat: When you require treatment in the nursery, do one of your staff need to be present to witness?

Bob: CA has a requirement of 100% reporting of pesticide use for businesses. CA also has an ag commissioner that is appointed by the county board of supervisors (with all the major growers in the county). They are the enforcers for these ag laws, like pesticide use. We are the only state in the country that has this.

Mike M: Say you are a nursery and want to bring something in—how do you determine how it is inspected.

Greg: In FL, we have a post-entry quarantine program where we watch it and take samples, to look for pests and viruses. For citrus, we uniformly say no.

Bob: Nursery stock movement, there is a federal quarantine, but there is a large area that the feds are not regulating that the states can regulate without preemption. As long as a pest is not being regulated by the feds, the state can do what they want.

Roland: Public hearing on Cocos Island, the rat eradication proposal was hammered by the locals. You need the local representation and messenger that can keep things from erupting and help bridge some gaps. You need public buy-in.

## **Long Term Control**

### **1. How do you handle biocontrol**

Aubrey: Biocontrol is our main tactic. However, if we are doing eradication, we try to be focused. Problem is the objectives of eradication and control are different, and the money dries up when you make that decision. The transition is difficult.

Bob: Biocontrol in CA is a long tradition. Recently, CA dismantled the program, based on budget cuts and programs selected by industry for cut. They are also nearly absent from the Universities. Biocontrol is a very covert thing to develop as you are working on eradication, you can't sell an eradication, while planning for defeat. The USDA has a good biocontrol policy that evaluates risk.

Neil: We have a very active biocontrol program, it has been a mainstay. We started out with long-term control, and not all species will go the biocontrol route. It doesn't work for everything. We look to biocontrol as an option, we have staff and partner or collaborate with others. It isn't always the answer and communicating to legislators the fact that it isn't a silver bullet, or even appropriate for all species in now one of our challenges.

### **When do you stop actions on a pest?**

Bob: When you run out of money or it becomes obvious that you cannot succeed.

Josh: How do you explain this to the public?

Neil: We always have the answer this question. We cannot eradicate LFA or coqui from the Big Island, so we have to work with the community and pest control operators on long term control options. We can manage these pests to manage the impact. On the other islands, we have the opportunity to eradicate, so we try to focus on this.

Bob: We tend to be fairly vocal when we start and fairly quiet when we end or transition it. It is a political decision.

Greg: We try to limit distribution.

Ross: On Guam Aubrey and I are the two active entomologists for an area the size of the U.S. We are really dependant on collaborations with Hawai'i, Florida and other areas. Through meetings like this, we find out what's going on and adapt it for use in Guam.

### **What are our opportunities?**

Bob: This is a very complex issue, and we can't do everything. We can pick our fights.

Christy: NPB for assistance on notification of interceptions for Guam, HI, Fl, CA.

Gregg: I think this would have much more potential to get somewhere working together than individually. I also encourage working together to identify pests locally, similar to what we're doing in the Caribbean Safeguarding Initiative.

Neil: Collaboration is going to be key. Information has always been a bane. NASDA is also a potential. Local legislation is also moving that says we couldn't share locally our own information, so it seems a bit hypocritical to request it of the Feds., but we need it.

Bob: We all like the idea of sharing the information, but we aren't always able legally or operationally to share, but it is very difficult. It took us decades to get information.

Gregg: With CBP, they have their own systems and we are working to gain access and merge to get shipment information, it is confidential.

Roland: Your question was opportunities. We've heard a bunch of the gaps and challenges. This clarifies some of our shortcomings. The RBP is not perfect, there are a lot of gaps. But these are opportunities. We can work together to look at this and bridge the gaps. If we have can-do attitudes, we can work together. We need to articulate this to the people outside this room. If we want to protect California and Florida, we need to go to the front line, and that is in Hawai'i and in Guam. We need to help get people to the front line.

**(END)**