



Koa Stewardship —Kaua‘i

Bill Cowern, Kua Orchards

When I was asked to look into what kind of koa was being managed on Kaua‘i, I must admit that initially I just drew a blank. There are a number of reasons why there have not been significant plantings of koa in the recent past. As I started to think about it, I thought that the most important thing that I could perhaps mention were the reasons why I and other people have chosen in fact not to plant koa. And, perhaps, we can deal with those problems or those opportunities and increase the potential for planting this fabulous tree.

There were significant plantings of koa in the Koke‘e area of Kaua‘i in the 1930s. I’m not even certain when all these plantings occurred, but I know much of the it occurred in the ‘30s. And much of it was from Hawai‘i Island seedstock. Some of those trees have grown into very nice form, especially some of the trees that are at the forestry cabin, up in Koke‘e; most have not. Most have become rather straggly or have lesser-quality form. There seems to be a similar amount of curliness to material that comes down every once in a while.

I had to ask myself, Why is it that I am not deciding to plant koa? And why is it that so few people on Kaua‘i have planted koa in the recent past? We could only find maybe a couple of people who have planted a hundred trees here or there. And I had to go back and look from my own standpoint and say, These are the reasons I made this decision. I can’t say that these were the reasons that someone else in my position that is looking at a commercial activity would make these decisions, but these are the reasons that I made the decision.

First of all, most of the lands on Kaua‘i that are available to someone like myself, who wants to start a “forest industry” that is a commercial forest industry on the island, planting and harvesting trees and hopefully taking that into secondary and tertiary products. Most of that land is between about 400 and 1200 feet in elevation. For the most part, koa doesn’t grow well in those elevations and as such, it’s precluded right off the bat. But after thinking a great deal about that, here obviously is an opportunity. The lack of availability of seed sources for low elevation that have been proven to produce a quality tree is an impediment. There is really no

knowledge of the chance of having a successful product at the end of your growth period, either due to the quality of the logs, the quality of the wood itself or even due to the recent die-back problems which are even to some extent not fully understood.

So, therefore, we lack available land. We have a lack of available seed sources, and we have one other issue which at least was partially was in my mind when I looked at what I was going to grow, and that was the fear of not being able to cut it down once I’ve grown it. While that has certainly been lessened by the passage of the Right to Harvest Bill here in Hawai‘i, it still is an issue that comes right the forefront, because anytime you start dealing with native species that support endangered species you begin to think about, “Gee. What happens if I get an endangered bird that takes up residence in my koa forest?” When I came in today, I must admit the fact that I was going to mention that was heightened a little bit by the flyer out there that said: “Stop Cutting Down the Koa Forests”. I’m not, by any means, intimating that we should cut down all the koa forests.

But that is an issue, and it’s an issue that needs to be addressed. We need to work from a commercial and from an environmental standpoint to understand what are the limitations that we’re going to work under here and how can we work with each other. If people are scared to plant, that is obviously not going to help expand the koa forests on the islands of Hawai‘i.

To summarize, the factors that led me away from planting koa were the lack of available seed sources (and therefore the ability to guarantee that you could get a good quality crop) and the lack of available land (especially public land). I have attempted to look at leases on public land and have been told no, there just are no leases available. The only lands where you could begin to expand koa forests on Kaua‘i are public lands, for the most part which are high enough in rainfall to achieve that kind of success. The final factor is the fears about regulatory interventions, which are in some cases real and in some cases perceived, but nonetheless, whether they’re either, they have an impact on people making decisions.



Questions to the Panel

Q: [to Sally Rice] I'm interested in the tax incentive on the Big Island. A little over a year ago we were in Hilo, and one of the biggest problems that the landowners were facing was the inequity in the tax system. Can you tell a little bit about how the changes in taxes were brought about and what's happening on the other islands for local tax breaks?

Sally Rice: On the Big Island, it was brought about by many people. The councilwoman from Ka'u, Keiko Bonk, was one of the instigators of the original bill, along with councilman Al Smith from Puna. The HFIA was very supportive, and has been pushing for something like this for many years, and decided to concentrate on those islands where we had the best shot of having something passed. The politicians and the people on the Big Island seemed to be going down the same road. It took us awhile and a lot of hard work on everyone's part to get it honed to a satisfactory bill in terms of the economics. The bill is in place, and later if you want to get specific about it, you can speak with someone here from the real property tax office. It gives you the real property tax value as livestock grazing, but there's certain restrictions, and the land must be inspected. I think it's pretty practical and well set up. The HFIA tax committee is looking at helping the other islands. Kaua'i has gotten fairly far along; they have a tree farm bill that was recently passed. For Maui, we need to do some research there, then we're going to see what we can do.

Bill Cowern: I want to expand on what happened on Kaua'i, because it's a significant bill. The tree farm bill basically states that if a management plan is presented to the real property tax division and accepted as a reasonable management plan for planting timber, that land is exempt from planting taxes completely until harvest. If you were in fact, for instance, planting 1000 acres, 100 acres per year, in your plan that entire 1000 would be exempt from taxes until harvest. That is an exemption, not a deferment; there is no other condition. It just reverts back to a normal agricultural tax at the time harvest takes place.

Q: [to Robinson] On your slide, you had one that pertained to yield per acre, and you had 10,000 board feet per acre. Over what time frame are you talking about? Per 40 years?

Mike Robinson: That was on a 50-year rotation. That's basically on a sustainable basis, if you had 50 acres and you cut one acre per year. You get 10,000 board feet per acre regardless of how many acres you sold, but a 50-year rotation.

Q: [to Robinson] Have there been any plantings or research done on planting koa amongst gorse?

Mike Robinson: Gene Conrad and also Paul Scowcroft have done a lot of work up in that country. They did some studies and actually found out it worked its way up through the gorse and survived and did well. I think you still have that little enclosure there that you can see from the road where the trees are 20–25 feet tall in the midst of the gorse. I don't think you can get to it anymore because of the gorse around it. But it worked. We've got 60,000 acres of gorse and we know that gorse can't handle shade. If we establish some tree cover in that land, it could probably take care of the gorse.

Q: [to Cowern] What happens after harvest in terms of the property tax? Does it go back to an exemption for second rotation and then third rotation?

Bill Cowern: The first problem that was attacked on Kaua'i was to get forestry listed as an agricultural activity. That was done in 1991 as an administrative change. That put it into the general agricultural rate, which means that the land would be assessed at \$1000 per acre per year. The exemption then happened this year, passed on July 31, and will actually become effective next year [1997]. At the end of the harvest period, one year after harvest actually, the land reverts back to the standard agricultural rate and would remain that. It is an incentive to start the industry only, not to continue it.

Q: [to Robinson] You said the industry currently uses about 600 acres. Do you have any idea of the age of koa that's being used for that kind of quality?

Mike Robinson: That's using natural forest situations, something like 3000–5000 board feet to the acre. It was something like 500 board feet per tree and 7 trees per acre. Again, this was talking with loggers that are out there cutting these stands. As far as the age, what, 150-year-old koa probably? Really unknown.

Q: [to Cowern] What you are growing, what did you decide to grow instead of koa?



Bill Cowern: Let me preface it by saying there is a long-range plan here. The first stage of this plan is to produce a crop that will give you enough income to control the land and proceed to your next step. For that purpose, we're planting *Eucalyptus deglupta* and *Eucalyptus microcorys*, chosen for a number of reasons, but primarily for the speed at which you can get a return. When you're spending . . . I'm probably spending \$150,000 this year . . . whether you get a return in 15 years or whether you get a return in 25 years is a big issue. It's important to make the thing economically viable. Beyond that, you can then change your mix. You can get into more native species. The problem with doing it initially is that it probably wouldn't be economically viable. You either can do it or you can't. But I'm open to suggestions.

Q: Maybe from each of the panel, what could be done now to remove what you perceive as disincentives or to augment existing incentives?

Bill Cowern: I think we've already gone through the disincentives. Clearly, better seed sourcing is the biggest issue that I see, if we can find a good, stable source of seed that would produce a quality product. I think Dr. Brewbaker's been working on this for some time. That would be the biggest issue, in my mind, that would allow us to proceed with a better koa plantation.

Bart Potter: Having spoken to some landowners on Maui, they were principally worried about property tax and the ability to harvest. On Maui, they haven't seen any property tax activity yet. I think the seed source or a source of viable propagules is important. Either one could be developed.

Mike Robinson: Anytime there's a disincentive it's attributed to risk. People don't want to take a risk with their money unless they can realize something back, although there are people taking risks even though it may cost them in the long run. If we really want to get some scale to this industry, or to the growing of koa, I think we need to remove as much risk as possible. There are too many unknowns right now about koa. There are people that think it takes 200 years to grow a decent tree, and we've got people who think it takes 20 years. Plugging into decision-making formulas, like how long will it take me to pay off my fertilizer debt, nobody has pinned that down. It's still at the proprietary level, and maybe not even at that level. The faster we can get a government entity that doesn't have vested interest in

their returns on their research to take a hard look and answer some of those questions and remove that risk for people, the faster people can make informed decisions about getting into koa. Those are the kinds of disincentives we need to remove to make it happen. I've laid things out based on my own knowledge and sense, but I don't think that's enough for some people, and that's why it's not happening at the scale we need it to happen at.

Sally Rice: I agree with Mike to a large extent. One of the things that we don't know is what we've got. We haven't a clue, as I found out in doing my survey of the Kona area. How much board feet of koa exists? Nobody knows. It's very hard to base an industry on speculation. We need hard numbers. We need business plans. We need some extension help on what we can do in a business way on the small lots and in large areas. We need a change of perception. That will come with time. Cattle grazing has been the choice for most of the large landowners on all the islands except for O'ahu. There are some of them here today that are looking at other alternatives. The change in perception has to be worked on by everyone.

Jay Warner: My own perspective on things comes predominantly from being a furniture-maker. A lot of the wood-workers, who are moderately represented here today, have very different ideas about what they see going on with the state of the forest, with the state of the lumber-cutting industry itself, and the distribution of lumber once it's sawn and dried. If there was a better way of distributing information about what's going on overall, statewide, to all of the wood-workers that are using this product, once it's all said and done, that'll help a lot to spread information to the general public, who are the people who are buying things from us furniture-makers and wood-workers. That will help be a good incentive to give koa a good reputation as being a sustainable and usable thing, not something we need to lock up and hide and protect behind large gates that no one can ever go up and use. I hope that more of that happens in the future. With this symposium and people talking here and sharing knowledge back and forth, we'll be able to do a lot for that.

Bart Potter: Even though the focus of this conference is koa, the industry has the potential to be more than koa. It's tremendously important, but the koa industry could be part of a bigger industry that uses many of the other woods that have been planted here over the years.



Q: It's my understanding that a lot of the trees planted over the years [by the state] were for commercial harvest. There doesn't seem to be a process of harvesting this wood now on state forest land on a larger scale than a tree here or there.

Mike Robinson: HFIA's board has discussed that recently because of some issues that happened on one island concerning permits. I know the board has decided to make this as high a priority as possible, considering the resources we have, to investigate how that permitting process works on state land, see if it's fair, if people have access in some equitable way. So HFIA is looking into it. We'd be glad to have some volunteers help us with that.

Q: It seems like one of the biggest impediments to making a koa tree farm is starting with a blank slate and then waiting for the first harvest. It seems if you went into a property that has a koa resource available for salvage or harvest, and start at that point and then put in your trees and take care of them, that you'd be much further ahead in the game. Are there any areas of state or private lands that are available to do that?

Sally Rice: I'm not the expert on this, but I've been selected to answer the question. The private land resources are at this point fairly limited because the young trees are not old enough and the older trees are being logged by contract loggers or the landowners themselves. The state land is where there is a resource and hopefully, in the future, based on Mike Wilson's talk this morning, there will be a window of opportunity there where a private person can develop a management plan with the state and do selective harvesting. Unfortunately, at this point, that's all we know.

Q: Is that concept that a private company, or whatever, would be able to get a lease and be able to operate that as a koa plantation, more or less?

Sally Rice: Those are details that have not been worked out and, relative to state land, your best bet is to have a talk with Mike Buck.

Mike Buck: Concerning harvesting existing plantations or wood resource, the state has planted over the years about 46,000 acres of plantations. A lot of them are more for erosion control; they're really non-commercial species. You had some harvesting in the past for wood chips. We've had some harvesting that's been blocked by lawsuits. We had a eucalyptus harvest on Maui that was

blocked by a lawsuit. We had a Moloka'i harvest that was blocked by a lawsuit over access. A lot of these areas that were planted had communities grow up around them, and some people don't like the concept of having the trees cut, native or non-native. We are currently, as part of the initiative you heard about, planning an inventory of all our existing, available, non-native plantations we know we won't have any problems in harvesting. Part of the initiative is going to the community and asking what's the best strategic use of that resource. It includes a whole mix of non-native species. That's an issue that we need help from the community and the industry about, how best to use the existing resource we have now to prime the pump while new resources are coming on-line. The issue of harvesting native trees from at least forest reserves has been very controversial. There hasn't been any in the last five years, at least legally. We had a koa management area set aside on the Big Island and we had a threatened lawsuit on the environmental assessment. We had a community group involved in some sort of demonstration. Then we had some native Hawaiian gathering and that overlay of issues came up. This is in the Kapapala area, a 1200-acre piece that was zoned ag that was pulled out of a pasture lease for a demonstration koa management project. That's an ongoing issue that's kind of stalled right now. On the issue of pasture leases and availability, there's lots of land right now that's in pasture leases. You just can't go to someone that's a current leasee and say, "I'm sorry, we're going to change your land use." I think the dialogue needs to be over some cost-benefit analysis. What is the public land? How is it being used? Then negotiations with the current lessees to change the land use or doing some other administrative type issue to make that land available. Next, there is currently 5000 acres of ex-sugar land that is out for lease for commercial forestry. We were one of the first people off the block. When we released our forest investment memorandum, we put some land on the table as well. We found out that 5000 acres is too big for small people and too small for big people. We were negotiating with Fletcher Challenge from New Zealand, and that didn't work out. We are currently at the end of a long negotiation with the new Oji Paper Co. We're not sure that's going to work out. Subsequently, the issue we're dealing with is what is the appropriate role for public lands and public assets? For some of the shorter-rotation forestry, the economics have been validated on adjacent private lands. We'll



be going to you during the forestry conference and asking how to utilize some of the federal and state funds. Forestry co-ops? Leases in smaller pieces? Even potentially joint-venturing with the private sector on some commercial use of our existing plantations that are already zoned for commercial forestry? That may be a better way of dealing with it than having the government manage the lands. In the late 60s, this was before I came, we bulldozed about 20,000 acres in the Waiakea area and planted non-native timber plantations. Many of those areas may not have been appropriate. I'm not commenting on it. We don't do any more bulldozing of native forest. Of that 20,000 acres, there's about 4000 or 5000 acres of trees that are stocked. That'll be part of the inventory. There's probably another 4000 to 5000 acres of land that is planted with a tree species that shouldn't have been there that could be available in the future. Some of that land should never have been cleared at all, but it's a valuable resource for the industry to look at. We've done that damage historically; that was done in a different context. How do we best restore that land and use that for some economical land use? It's a very appropriate issue for some environmental groups to say, "Look, you already bulldozed 20,000 acres, what do you have on the land right now?" Maybe there's ways we can work with the private sector, because there sure isn't funds in the public sector for us to do anything proactive about that.

Q: . . . Wood Valley area and our proposal was turned down because we didn't offer them the money they want. They want \$50 per acre per year and the longest lease they'll do is a 15-year lease. To grow trees, I think we should pay the same amount of money as they're leasing to the cattle ranchers. We're trying to compete with cattle ranches yet we have to pay four times the price that they pay to lease land. We're coming from Maui and we're looking for land on all these different islands and so far we've come up with nothing. We grow 20,000 trees per year. Right now we have enough trees to grow 50 acres, and we're doing it on six acres. So our problem is finding land that we can afford to lease and study the whole thing.

Mike Robinson: There's a lot of landowners in this room, large and small. Maybe in the next few days, match up with some of these people. Looking to the private sector is probably a good idea given the political situation around public lands. In my area, I inter-

viewed three state agencies, and only one was interested in an economic return. Hawaiian Home Lands is pursuing economic development of its lands, however there's a lot of politics with that one, too. Any time you write a plan for public land, you find out what the state's up against. I'm not saying the state doesn't want to do it. It's nearly impossible. These days with limited funds and limited resources, it's better to look at the private sector in the near future.