



College of Tropical Agriculture and Human Resources  
University of Hawai'i at Mānoa

# 2015 Hawaii Cacao Survey

HC 'Skip' Bittenbender  
Cacao Extension Specialist  
Department of Tropical Plants and Soil Sciences  
CTAHR, University of Hawai 'i at Mānoa  
<[HCBitt@Hawaii.edu](mailto:HCBitt@Hawaii.edu)>

# Background

In January 2015, the fifth annual Cacao Survey was sent to farmers and chocolate manufacturers in Hawaii using Survey Monkey.

The survey asks about farm size, islands where cacao is grown, yields, future planting intentions, problems and issues. Individual responses are kept confidential.

Results are shared with the DOA, my CTAHR colleagues and other agencies. It is presented today at the Hawaii Chocolate and Cacao Association annual meeting March 15, 2015. A copy will be sent to those on my list, others can request a copy by sending me an email [HCBitt@Hawaii.edu](mailto:HCBitt@Hawaii.edu).



# In 2015:

I will harvest cacao – 25 farms

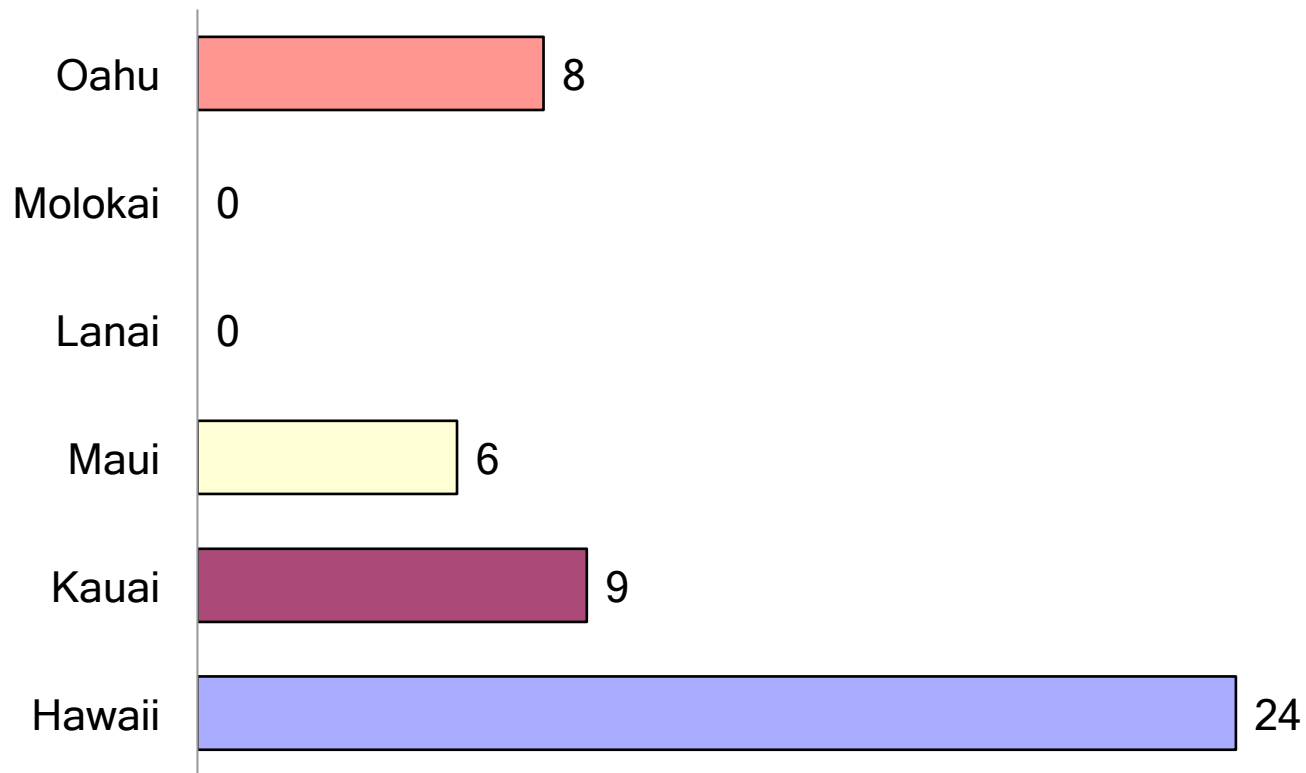
I will plant my first cacao trees – 3 farms

My trees are not bearing yet – 16 farms

44 responding farms



### My cacao farm is on:



# What spacing are your trees planted ?

Four major spacings are used.

20 ft x 20 ft, interplant with banana. 8% of farms

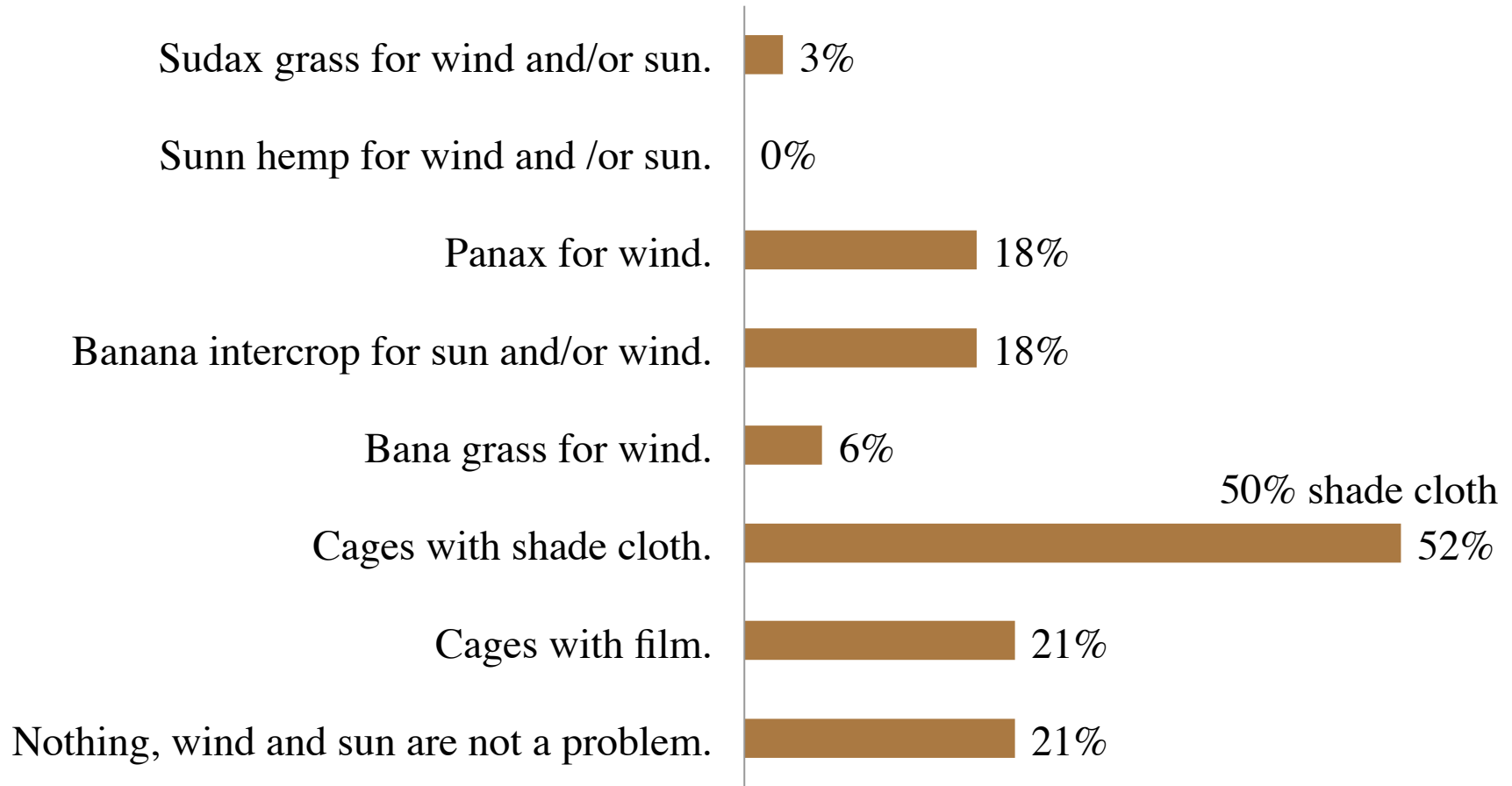
6 ft in row x 12ft between rows, hedge row for equipment access, 14% of farms

8.7 ft x 9.4ft average wide spaced, 47% of farms

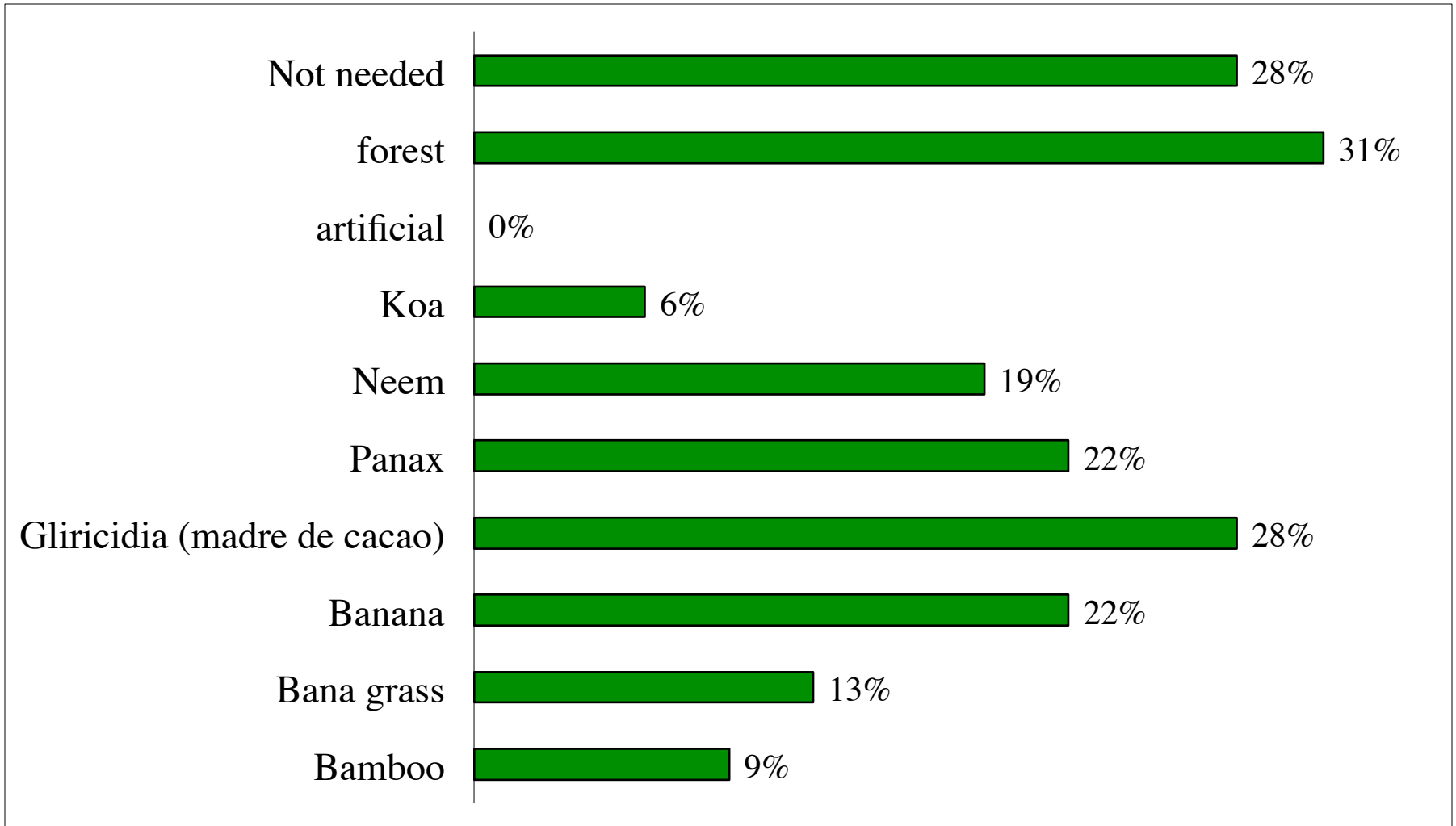
5.2 ft x 5.8 ft average close spaced likely a double row system used in Indonesia, 25% of farms.



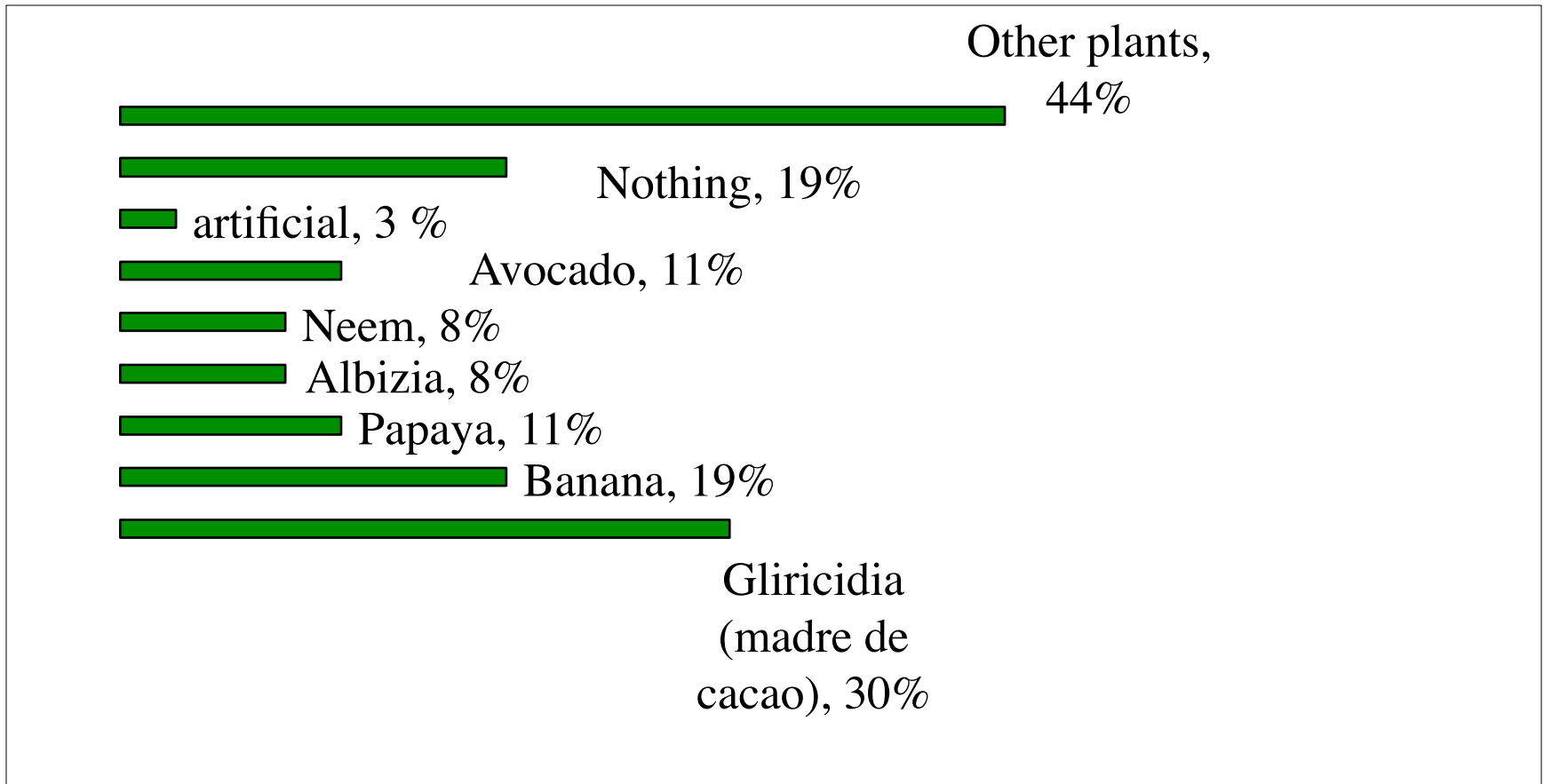
# Did you need to protect young trees from wind and/or sun damage after planting? What did you use?



# What type of windbreaks do you use to protect your trees after they are established?



# What types for shade plants are you using?

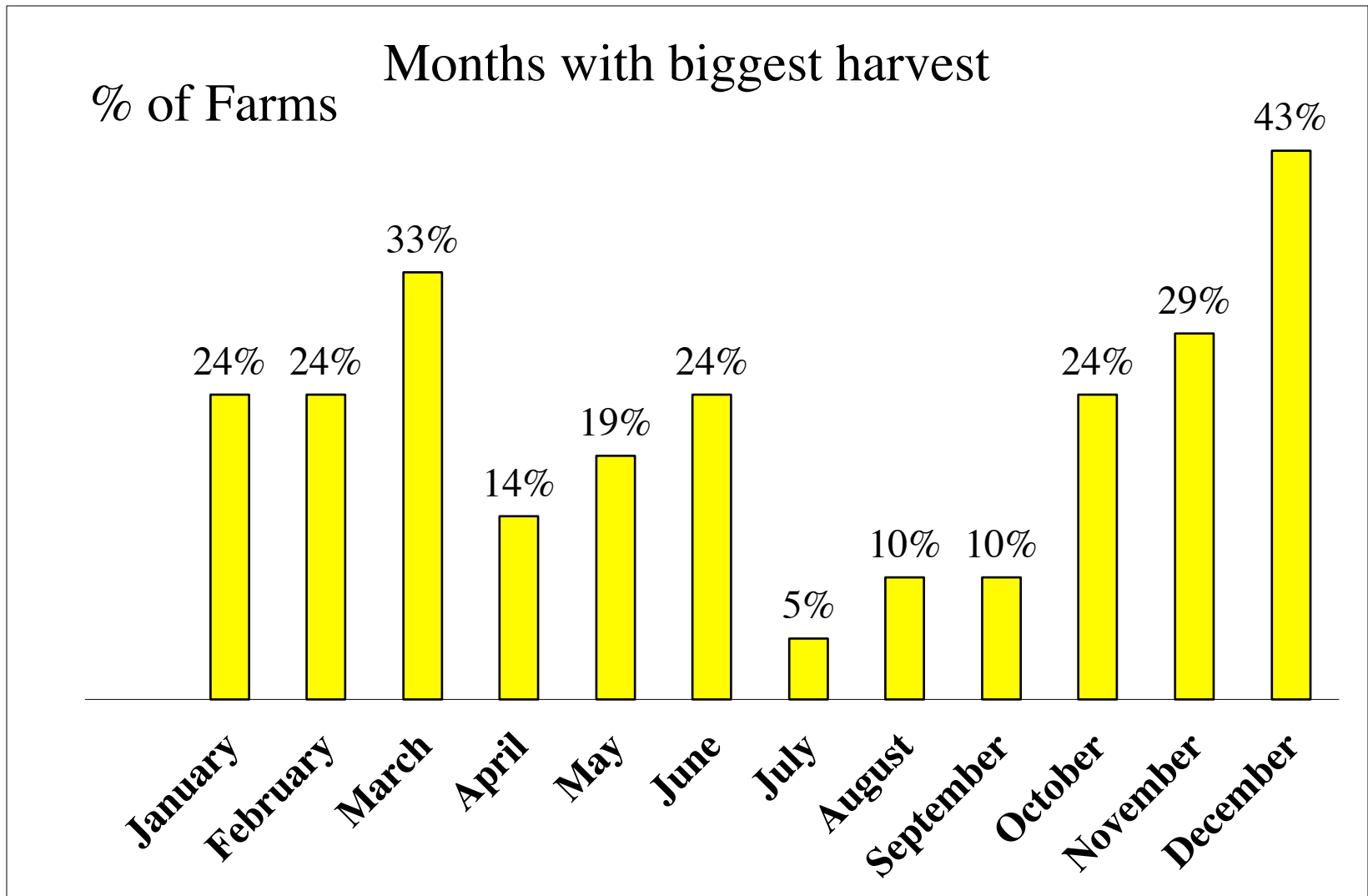


Half of farms are full sun.





# Time of Harvest



30% of farms harvest every month



If you harvested cacao in 2014,  
how much did you harvest?

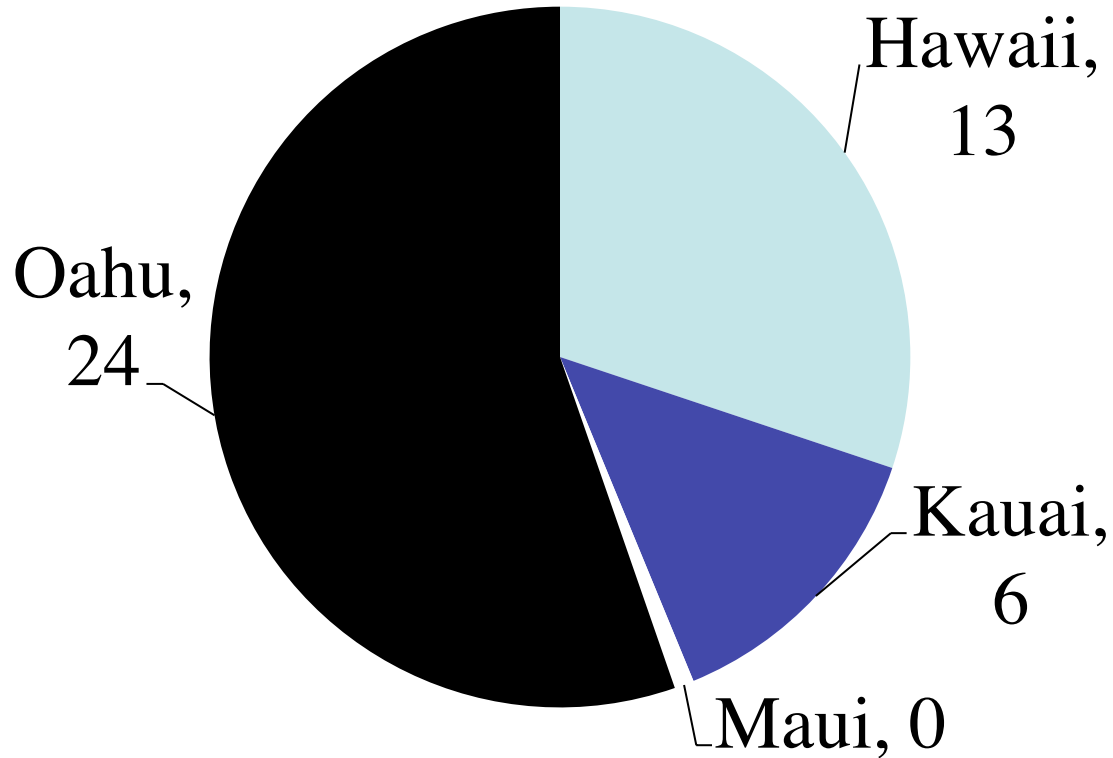
State wide the harvest as reported by 24 farms was 46,000 pods plus 3,340 pounds of pods plus 8,100 lbs fresh beans plus 31,600 lbs dry beans.

Converted to dry bean equivalents the 2014 crop was 38,600 pounds dry bean, a 25% increase over 2013.

Dry bean yield is estimated at 900 pounds/acre.



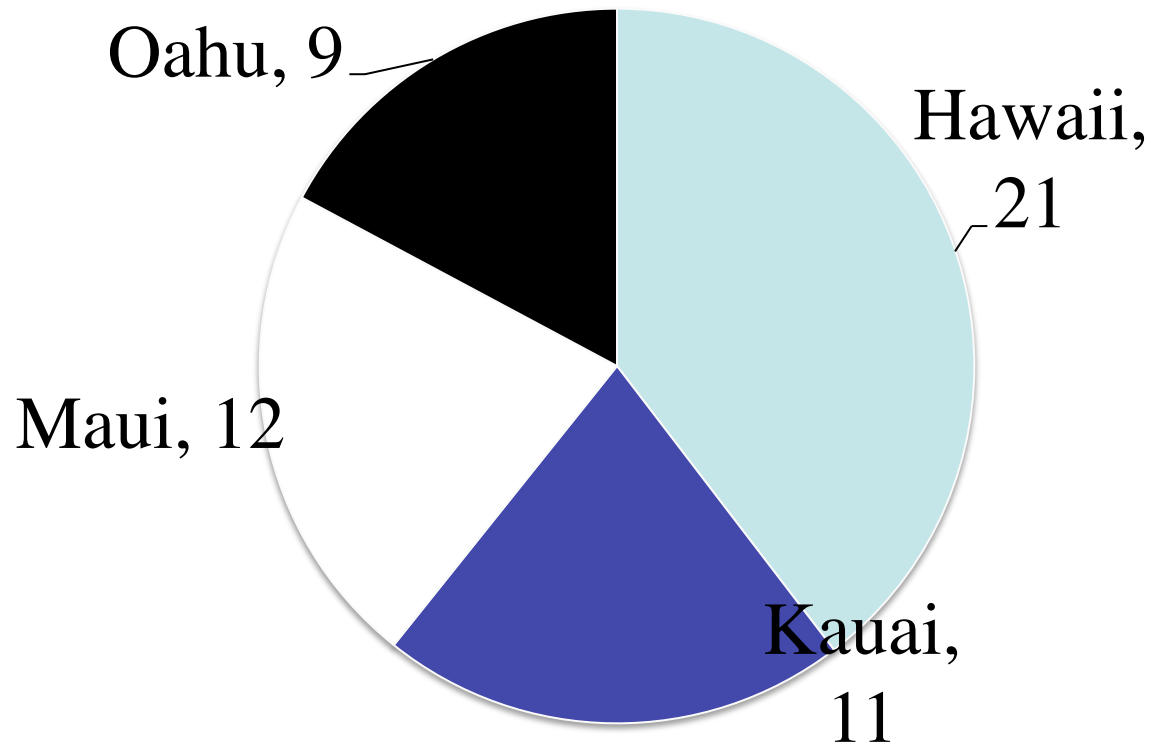
# Acres harvested in 2014 by island



43 Acre equivalents



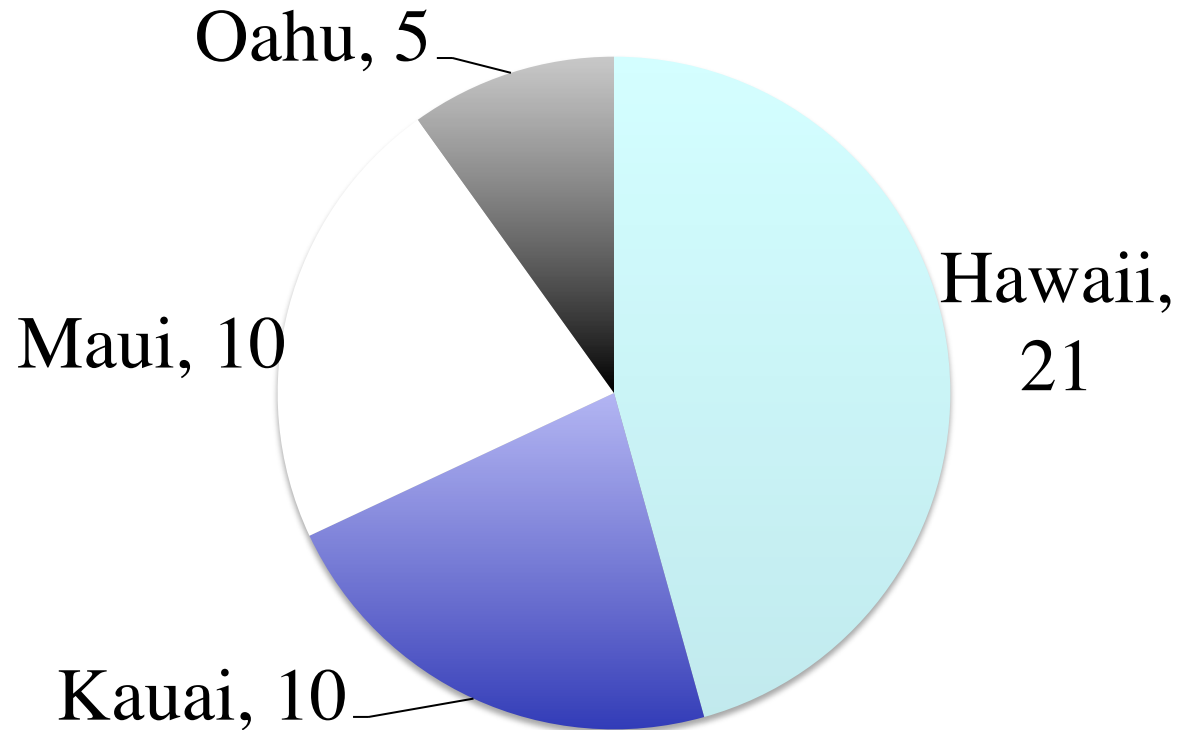
# How much cacao was too young to harvest in 2014?



Total 53 acre equivalents



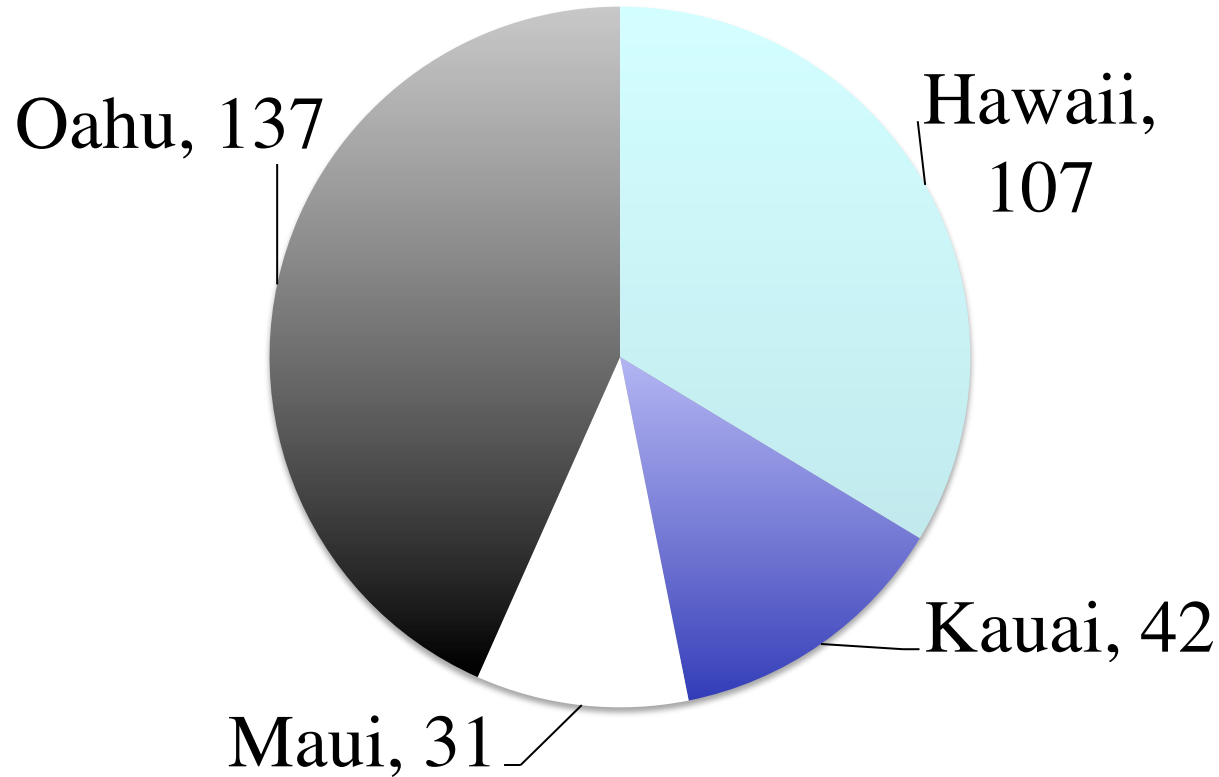
# How much cacao will you plant in 2015?



46 acre equivalents



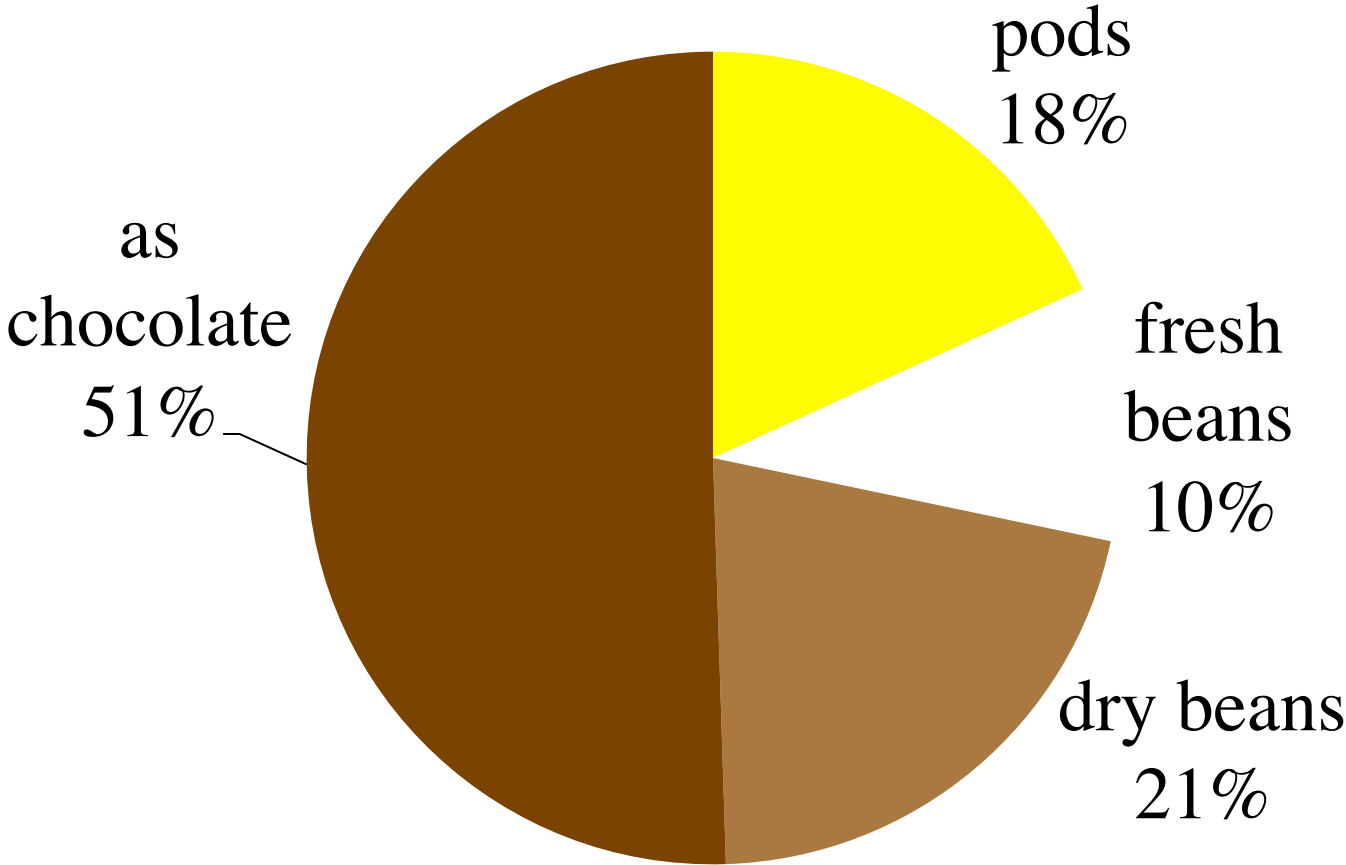
# In next five years do you expect to plant?



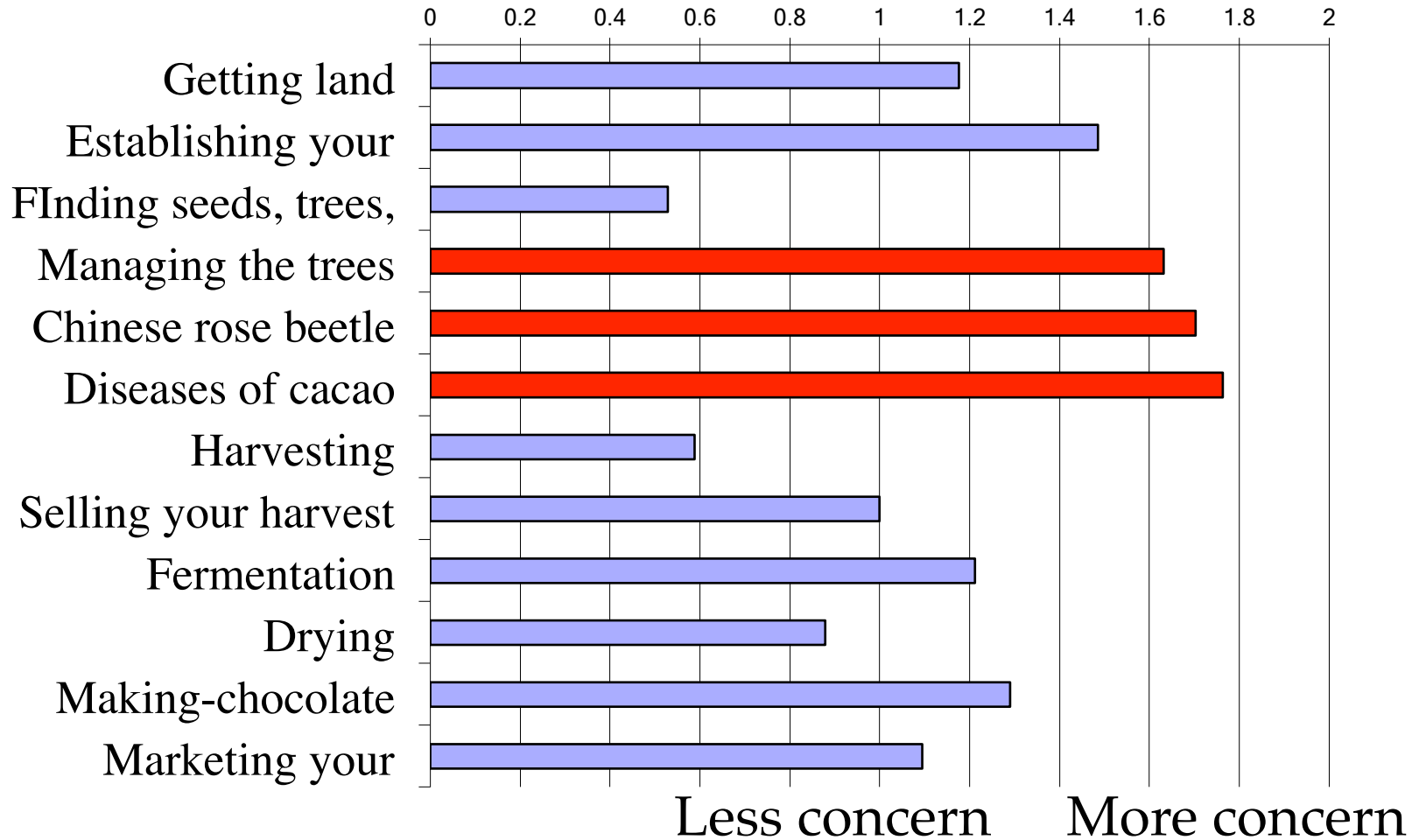
320 acre equivalents



# In five years, how do you expect to sell your cacao?



# Rate the importance of these issues For Hawaii Cacao to Chocolate industry





# Specific Comments & Issues

Land preparation cost in rocky Kona sites.

Land cost & dealing with regulatory agencies.

Getting seed and making good seedlings.

New pods wilt, reducing yield—cherrelle wilt.

Land and labor cost are high.

Need pesticides for Chinese rose beetle and ants.

Improving fermentation technique.



# How far have we come?

## Cacao acreage in Hawaii

