

Kulike Farm, Hakalau, HI

Hakalau Chocolate Journal #3: December 2016

In the last journal, we talked about selecting ripe pods and fermenting. We continue with more details on the art of fermentation and then drying.



First pods of the fall-winter season – on a rare sunny day!

Fermentation is Key



Of all the processes we do, fermentation seems to be THE key to a good tasting bean. A proper ferment transforms the tannins and other bitter-tasting chemicals into tastier compounds. The better the ferment, the fewer other ingredients - such as soy lecithin, cocoa butter, vanilla, and sugar - the chocolate chef needs to add to make the chocolate taste good.

Traditionally, cacao beans are fermented in large wooden boxes, or even just huge heaps on the ground, covered by banana leaves.

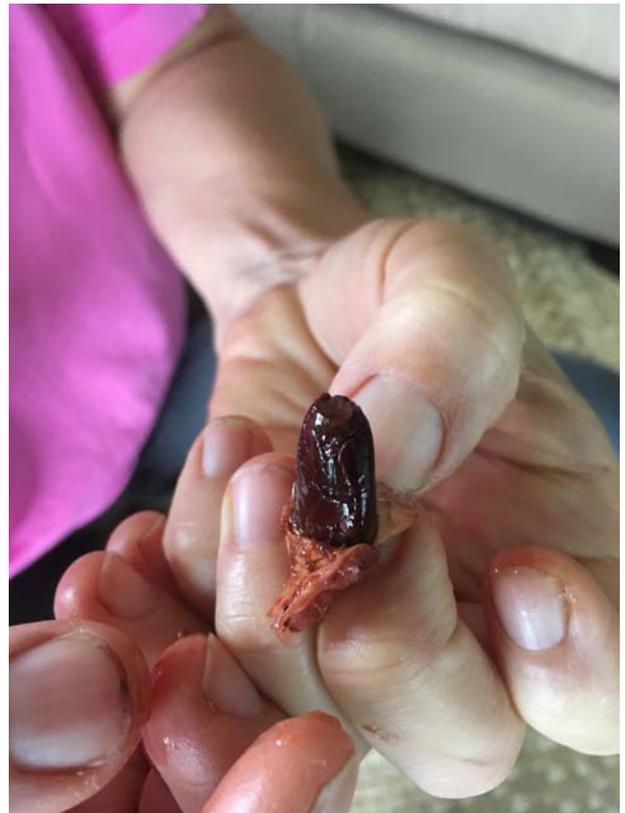
It takes a large mass of cacao beans to create a hot internal temperature. Ideally, you want the mass of beans to get up to 120 degrees F.

Because we don't have enough volume, these beans have been fermenting in a jar in an incubator (see Journal #2). This is day four. The sugary white aril on the outside has broken down, spurring the internal fermentation.



After a day or two, the germ of the bean dies from the fermentation process. We stir the fermenting beans at least once a day, to make sure all the beans are getting the heat they need but not getting too hot.

We taste and judge each small batch of beans to make sure we stop the ferment when they are ideally ready.



Finessing Fermentation

After one week, we check how the beans look inside by cutting them in half the long way. We **look, smell, and taste**.



We **look** for a brown color vs. purple, and fissures opening between what would have been the first leaves, if the bean had been allowed to germinate.

The **smell** should be like good wine. The naturally occurring fermentation yeasts split the sugar from that delicious white

seed coating into alcohol and carbon dioxide. Then lactic and acetic acid bacteria take over, gradually turning the alcohol to vinegar - a taste you may have experienced if you've ever had old wine. We stop the process before it gets too vinegary!

The **taste** should be mellow, not bitter or astringent. There's no sweetness, so it doesn't taste like chocolate yet, but there are nutty, citrus, wine, and flowery flavors.



Drying Out

When the beans are ready to dry, we lay them out on trays, hopefully in the sun, or at least in a dry spot, and at times in the dehydrator on very low or the oven off with just the light on. We are working on setting up a drying house.

We don't rinse them, just leave them lightly gooey. They will continue to ferment and develop flavors as they slowly dry.



While drying, we gently stir them. In around 10 days they snap dry between our fingers, and are dry enough to store in jars until we have enough assembled enough to start a batch of chocolate.



Next time - roasting, cracking and winnowing.

It's a long process, but so worth it!

