# CacaoSoft Functional Meeting

# Meeting Minutes

May 16, 2016

1. Roll call
2. Raul Ocazionez (Partially)
3. Yulia Vydra (Partially)
4. Nick Macrina
5. Maria Ramos
6. Juan Manuel
7. Juan Ramon
8. Liseth Jimenez
9. Agenda/Discussion Items
10. Project Status Updates
    1. Discussion of status of current & upcoming activities
11. Questions/ Concerns
    1. Clarify any existing questions
12. Captured Notes

Status Updates/ Open Discussion

1. Clarifications on KPI’s
   1. Bean Index
   2. Measured as weight
      1. Onsite
         1. Not an accurate measurement, so experts have advised this method not be used
            1. No accurate way to measure the humidity, light exposure, and other climatic conditions that vary and have an impact on the drying of the beans
         2. Dry 100 beans for approximately 10 days, then divide the weight by the number of beans (500) to obtain the bean index
      2. Laboratory
         1. Obtain a sample of 100 dry and fermented beans with a humidity of about 6.7% to 7% and weigh them. The weight given is the bean index. To obtain an average weight of a bean, divide the total weight by 100.
         2. Process
            1. Take wet beans into an oven, about 5 days in the process, dehydrated until 6.7% / 7% humidity. They are then weighed and that weight is divided by the number of beans in the sample (100). The bean index is calculated in grams.
2. Plantation Layout
   1. Farm currently has 5 zones; defined from the fertilization plan based on soil composition
   2. Four of the five zones are physical locations with boundaries
   3. The 5th zone is composed of replantings that are scattered within the other 4 physical zones. Not a physical zone.
   4. Valves are the subdivision on a zone and only belong to one zone.
   5. Sample Size
      1. 50 consecutive trees per zone; numbered 1-50
   6. Replantings
      1. Are replantings taken into consideration when doing the bean index, or is the bean index for replantings done separately?
         1. Per Juan Ramon, the bean index for replantings is not calculated because they do not produce anything and once they start producing, they are incorporated into their local/ respective zones.
      2. Replantings Rates
         1. Per Juan Ramon, roughly 20,000 trees have been replanted since the inception. Replantings have taken place 3 times.
         2. Current rate of replanting
            1. Not known
         3. Expected Rate of replanting
            1. Not know, but industry average is about 5%. Per Juan Ramon, 90-95% of the original density remains since the farm’s inception.
      3. Forecasting
         1. This rate needs to be taken into account as density will not note what trees are productive vs not (replantings; too young to produce)
         2. I.e. Tree Density (1,333) X Percentage of Productive Trees (90%) X Expected output of Tree
         3. Per Juan Ramon
            1. We can create a population census where we know the exact age distribution of trees
3. Harvest Index (Orchard Calibration Index)
   1. Dr. James Quiroz gives this indicator a rate of 98% accuracy
   2. Helps prevent robbery by having a good forecast
   3. Need to project harvesting based on age of the plantation as it can be variable
      1. 1st year- 100 Kilos per Hectare
      2. 2nd year- 400 Kilos per Hectare
4. Formatos (Forms currently used in the farm)
   1. Need to be revamped and not necessarily used as they are now
   2. Make it one form that depending on the activity selected, accommodates to the information needed to be collected for that activity.
   3. Need to be able to do two activities in parallel
      1. Capture data
      2. Measure performance in terms of
         1. Production,
         2. Labor performance,
         3. Costing, etc.
5. Data Collection
   1. Need a person that only focuses on collecting information
   2. Takes 3 days to cover the entire plantation including Valdivia
   3. Any given tree is “visited” over 60 times every a calendar year
      1. A survey of this selected tree sample can be collected which can give chronological and consecutive information on a tree
         1. Survey sample
            1. Flowering(no flowers, little flowers, lots of flowers),
            2. Leaf status, etc.
      2. With this information a data base can be created
   4. Most indicators can be collected and analyzed visually, but others require laboratory or equipment to analyze
6. Moving forward
   1. Action Items
      1. Need to schedule design session to develop a data capture form for KPIs and activities