Split screen function for ordering – Make It so that when someone pushed the button it adds to their cart rather than taking us to the editing screen.

Searchable attributes

- Name
- Location
- Strain
- Intake date
- Due Date
- Where it is in the testing cue
- All nutrients: ie Ca, Mg, Na……etc
- All Testing types (Packages): ie “advanced nutrient test” “Pest ID” etc
- Outsourced labs we send samples to
    - A&L Western
    - AL&L
    - Earthfort
    - Northcoast Labs
    - CW Analytics

I envision multiple drop downs for:

- Soil
- Plant tissue
- Water

Types and sources of material being brought in to the lab (drop downs and searchable)

- Water source
    - Spring
    - Well
    - Municipal
    - Compost Tea
    - Liquid Fertilizer
- Soil type

        - Native
        - Potting
        - Mixture
            - More Native
            - More Potting
        - Compost
        - Dry amendment fertilizer
- Plant Tissue
    - Strain
    - Seed or Clone

Package Offerings

Soil

- Basic Nutrient Panel
- Full Nutrient Panel
- Advanced Nutrient Panel
- Pest/mite ID
- Outsourced tests
    - Heavy Metals
    - E.coli, Coliforms
    - Pesticide
    - Diesel/motor oil & gas/additives
    - NPK for labeling
    - C:N ratios
- Other

Plant

- Compete Nutrient Panel
- Pest ID
- Pathology
- Outsourced test
    - Pesticide
    - Heavy Metal

Water

- EPA water hardness
- Complete water test
- Nitrates/Phosphates
- Micro-minerals
- Outsourced tests
    - Heavy metals
    - E.coli/coliform
    - Household water test

Generating a report?

Please see reports I gave you while you were here. I will also describe them in detail here (let me know if you need clarification)

SOIL - Includes nutrients tested and reporting unit (%, ppm, lb/acre):

- Basic test:
    - pH, EC (dS/m), Ca, Mg, Na, K, N, P, S (PPM's), OM (%), OC (%), ENR (Lb/acre), Ca:Mg ratio ***(Eqn embedded)*** , Exchangeable cation percent ***(Eqn embedded)***.
- Full nutrient test includes:
    - Everything in the ***basic test*** PLUS – Fe, Mn, Cu, Zn, B (PPM's)
- Advanced Nutrient tests includes:
    - Everything in the ***Full nutrient test*** PLUS - ESP ***(Eqn embedded)***, second set of numbers for Ca, Mg, Na, K, N, and P (PPM's). (deeper level extraction)
- Sha-bang-bang (SBB) test includes:
    - Everything in the ***Full nutrient test*** PLUS application rates for Ca, Mg, K (Lb/ $100ft^3$), and pH ***(an equation is embedded in excel to populate the application rates)***
- Original Gardener (OG) test includes):
    - Everything the ***Advanced Nutrient test*** has PLUS application rates for Ca, Mg, K, and pH ***(an equation is embedded in excel to populate the application rates)***
- Pest ID:
    - Soil mites and flies

Soil Out sourced

- CAM5 Heavy Metals – Cd, Cr, Pb, Ni, Zn (PPM's)

- Pesticides – Over 200 including Myclobutanil, Pyrethrins, and others. (Reported in PPM's)
- E.coli/Total coliforms) – Presence/absence test (+/-) and colony forming units (CFU's)
- Deisel/Motor oil
- Gas/additives (MTBE/BTEX) (Reported in PPM's)
- Soil Biology – Total bacteria, Active Bacteria, Total Fungi, Active Fungi, Nematodes (Reported in ???)

Plant Tissue - Includes nutrients tested and reporting unit (%, ppm):

- Complete Tissue Test includes:
    - Ca, Mg, Na, K, N, P, S, Fe, Mn, Cu, Zn
- Pest ID Includes:
    - Run on all pests: Broad mite, Cyclomen mite, Russet mite, spider mite, thrips.
    - Diagnosis (Drop down for diagnosis – each pest will have a built in attachment explaining what to do – this should be matched up with the insect(s) detected) (Develop special template with a section to add comments (See a pest ID report))
- Pathology includes:
    - Run on all fungal pathogens: Fusarium, Verticilium, Mucor, Foma, Pythium, Stemphyllum.
    - Diagnosis (Drop down for diagnosis – each pest will have a built in attachment explaining what to do – this should be matched up with the insect(s) detected) (Develop special template with a section to add comments (See a pest ID report))
- Outsourced tests include
    - CAM5 Heavy Metals – Cd, Cr, Pb, Ni, Zn (PPM's)
    - Pesticides – Over (qty?) including Myclobutanil, Pyrethrins, and others. (Reported in PPM's)
    - E.coli/Total coliforms) – Presence/absence test (+/-) and colony forming units (CFU's)

Water Tests include:

- Water Hardness:

    - pH, EC, Ca, Mg, EPA water Hardness Designation
- Complete Water Package:
    - Everything ***the water hardness test*** has PLUS N, P, S, Fe, Mn, Cu, Zn
- Outsources Tests include:
    - CAM5 Heavy Metals – Cd, Cr, Pb, Ni, Zn (PPM's)
    - E.coli/Total coliforms) – Presence/absence test (+/-) and colony forming units (CFU's)

Liquid fertilizers, Compost teas, Sludges –

- Tests performed:
    - Complete Water test (separate report template (Remove optimal ranges for drinking water)
    - CAM5 Heavy Metals – Cd, Cr, Pb, Ni, Zn (PPM's)
    - E.coli/Total coliforms) – Presence/absence test (+/-) and colony forming units (CFU's)

Tracking Within The Lab

Data Collection stations (each one will be check in and out with barcodes, information entered into the system via iPad.)

- Time stamps for each in and out for time tracking.
- Need to be able to look in computer at any time and see what the sample progress is.
- See how long a sample has been sitting at each location (Sample viability)
- See how long each station takes to complete
- Some data must be rendered using embedded equations

Barcode check in and out of stations

Soil (4 Stations):

- SatPaste Station
  - pH, EC
- LOI Station
  - Data collected (These numbers do not go directly into report, but are entered into an equation that populates the final numbers.) Lab tech will enter these numbers into iPad and iPad will render the data into the final numbers (Need to embed equation)
    - Crucible weight
    - Crucible+soil (Before ignition)
    - Crucible+soil (After ignintion)
  - Numbers go into equation where other numbers are populated
    - OM (%), OC (%), ENR (Lb/acre) – **These are the final numbers that go into the report**
- Spec Station (different stations within the station, each one will be check in and out of separately.) **(Raw data must be rendered into final number using an embedded equation)**
  - Phosphorus (2 different methods depending on the package each one is a separate station with different numbers populated)
    - DI
    - NaCOOH
  - Nitrate
    - DI
    - CaSO4
  - Sulfate
    - DI
  - Boron
    - DI
- AA Station – Machine converts numbers to ppm, download numbers into excel then into Adalis. (Embed equation for "dilution factor")
  - DI extraction (Macros)– Ca, Mg, Na, K
  - NH4OAc extraction (Macros)– Ca, Mg, Na, K
  - DTPA extraction (Micros) – Fe, Mn, Cu, Zn

Embedded equations after data collection

- LOI – Weights get converted to %
- Spec Station – Absorbance gets converted to transmittance, then to ppm's
- AA – Include a dilution factor as a multiplier (downloads #'s from Excel, need a box to enter a numeric value as a multiplier to the number that come from excel spreadsheet)

Direct measure no equations embedded

- SatPaste Station - pH, EC
- For outsourced tests we need to be able to transcribe numbers into our report template

Plant Tissue Stations:

- Nutrient Testing
    - Check in:
        - System
        - Oven
        - Grinding
        - Extraction: Ashing – Ca, Mg, Na, K, Fe, Mn, Cu, Zn, B
        - Extraction: Shaking station
            - N
            - P
            - S
        - Spec Analysis: Wet Chemistry
            - N
            - P
            - S
            - B
        - AA Analysis
            - Ca, Mg, Na, K, Fe, Mn, Cu, Zn, B
        - Testing Complete – Generate report

Embeded Eqn: All numbers for analysis – Spec = hand transcribe, AA = Excel

- **Pest**
    - Checked in to the system – generate barcode and time stamp

    - Scanned and placed in Fridge – (Need to process in a timely fashion so time in and out of each station is important)
    - Scanned when in progress – when scientist pulls sample out of fridge and is actively looking at sample.
    - Scanned when scientist is finished looking at sample
    - Scanned when final report is generated
- **Pathology *(Same system as Pest ID)***
    - Checked in to the system – generate barcode and time stamp
    - Scanned and placed in Fridge – (Need to process in a timely fashion so time in and out of each station is important)
    - Scanned when in progress – when scientist pulls sample out of fridge and is actively looking at sample.
    - Scanned when scientist is finished looking at sample
    - Scanned when final report is generated

Water (3 Stations):

- pH, EC Station
- Spec Station (different stations within the station, each one will be checked in and out of separately.) **(Raw data must be rendered into final number using an embedded equation)**
    - Phosphorus
    - Nitrate
    - Sulfate
    - Boron
- AA Station – Machine converts numbers to ppm, download numbers into excel then into Adalis. (Embed equation for "dilution factor") (each one will be checked in and out of separately)
    - (Macros)– Ca, Mg, Na, K
    - Acid extraction (Micros) – Fe, Mn, Cu, Zn

Embeded Eqn – All analytes

Barcode Tracking:

- Sample checked into computer
- Sample checked into oven (Also checks it in as "Ready for SatPaste")
- Checked in to SatPaste when actively performing check out when finished

    - Checking in and out of stations – tech will check into station when actively performing the tests and will check out upon completion.
- Checked out of all stations and ready to generate report (Maybe this final check out signals Adalis to generate report automatically)

Customer Profile – What we want to know about each of our customers (Can be drop down with an "other" option)

- What package they got
- What retainer/discount program they are on
- Packages can have multiple services that a customer uses throughout the year, we need to be able to see what they have used and what is left on their account. (Please see website - http://www.dbsanalytics.com/shop/)
- What Region the farm is located
    - Humboldt
        - Willow Creek
        - Witchapeck/Orleans
        - Alder point
        - Petrolia/Honeydew
        - Willow creek
        - Redwood Valley
        - Other
    - Mendocino
        - Spy Rock
        - Branscome
        - ??
        - Other

Consulting – site visit or office visit – (See attached "intake form")

Other Tracking

Time tracking for projects – A way for our employees and contractors to clock in and out of projects so that we can see where our funds are being allocated and categorize them appropriately for tax and financial tracking purposes.

Show me how to start and end projects

After playing with the program.

When adding a customer

- Not necessary – DL, Tax ID, SSN
- Necessary – Time stamp, Schedule appointments, reminders for appointments.
- Message board –
- Ordering buttons – need one for consulting
    - Manual enter of time – charge per minute and enter how many minutes it took.
    - By the hour and we can fractionate it. Ie charge by hours, qty = 0.5 for half hour, qty = 0.25 for 15minutes.
- How can I make bids and estimates, then roll them into an invoice or sale?
- How will we transfer info from QB to Adalis?

Phone call – 1/7/16

Steve and Lon

Real scenarios – Give them the particulars and the flow.

- Testing
- Consulting
- Pathology
- Pest ID

In and out of stations

Dashboard – see how many are where.

Sample comes in on a PO