Created 3/17/2023

Last updated: 3/17

# Make a visual timeline in ppt

Go to *docs > enterprise-budgets > timelines-visual.ppt*. Add a page with the visual.

# Assign a unique ‘scenario\_id’ to whatever you are creating

Each location has a ‘base’ scenario. If you are creating a base scenario, call it ‘base\_0000’ for Tulare, ‘base\_1000’ for Siskiyou, ‘base\_2000’ for imperial, etc. (still working on this).

# Add any new fertilizer types

Go to the *R > data\_refs > refbyhand\_fert-types.xlsx* file and add it there. This will be the ‘code’ with which you refer to that unique fertilizer.

Go to *R > code > 00\_refs > 01\_create-fert-refs.R*. Figure out how much nitrogen is in the fertilizer, as a percentage and add it to the code. Make sure the new fertilizer also gets added to the greet calculations (starts on line 115).

Also assign the fertilizer to a category for N2O emissions *data\_refs > refbyhand\_fert-category.csv.*

# Add any new field pass types

Look at the visual and *R > data\_refs > ref\_ops-fuel-usage.csv.* Decide if there are new categories of field passes that need to be included.

If there are, go to *R > code > 00\_refs > 03\_create-tractor-fuel-use-ref.R*. You can look through NRCS things and pick the best. They will be incorporated into the file *R > data\_refs > ref\_ops-fuel-usage.csv.* This is the master list that is called in the code that calculates energy.

Note: Fertilizer is a bit weird, there is fertilize, est1; fertilize, map1; fertilize prod1 which are all assumed to be surface applied. This is because I used those terms to distinguish the different passes within a lifetime of a stand. Sloppy but it works.

# Translate timeline into field ops

Go to *R > data\_in > location > base\_fieldops* and create a new file with all of the information derived from the timeline with the unique scenario id.

The function *fxn\_ProcFops* will be used in the *fxn\_MakeScenarioCSV.R* function to convert it into a summary file that contains unique rows.

# Translate pesticide applications

Do the same in *base\_pests.* The function *fxn\_ProcPest.R* will be called in the *fxn\_MakeScenarioCSV.R* function.

If a new active ingredient is added make sure to add it to the code that writes *ref\_pest-ais.csv* (*01\_data-prep > 01\_active-ingredients.R*). Also include the active ingredient amount in each product. If the units are unique, you will need to go to *00\_funs > fxn\_ProcProdData.R* and make sure it gets delt with in section *5. Pesticides (p)*

Note: Imperial was just copied from Tulare for now because the Imperial Enterprise budget doesn’t include details about what is being applied

# Translate other info

Go to *base\_other* and fill out all of the information there. You may need to adjust the code that runs things (fxn\_ProcProdData, energy, GHG) to accommodate new fertility types.

# Run base scenario (scen\_x001)

Go to *code > 02\_create\_scenario.R.*

Add the scenario to the appropriate section and run it. This writes a clean file to *R > data\_scens\_notouch.* Do not create a scen\_x000 file, it should start at x001.

Go to *code > 03\_run-scenario.R.*

Hopefully it works…it probably won’t and you’ll have to dig through the functions and run them line by line to make sure it works correctly.