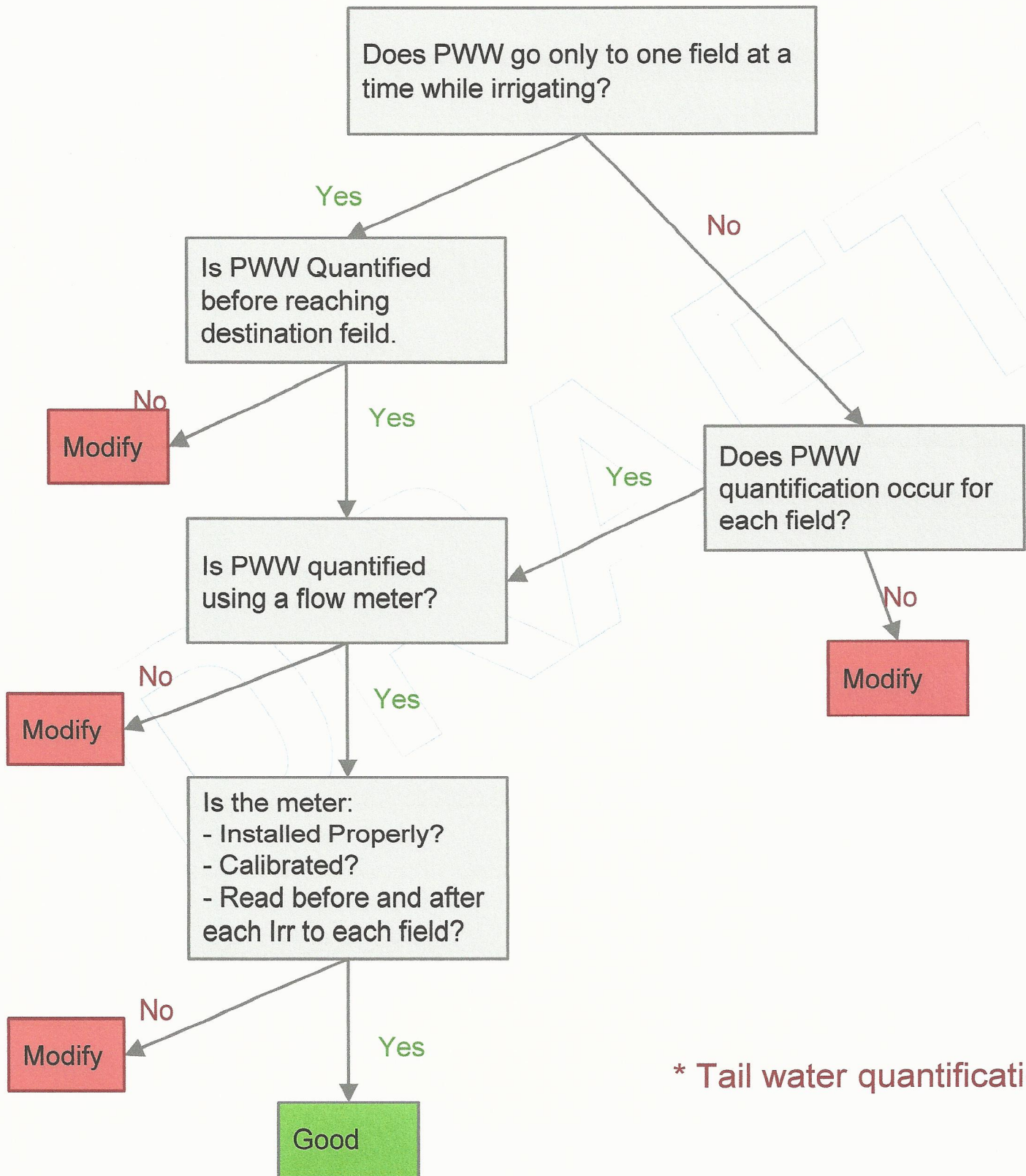


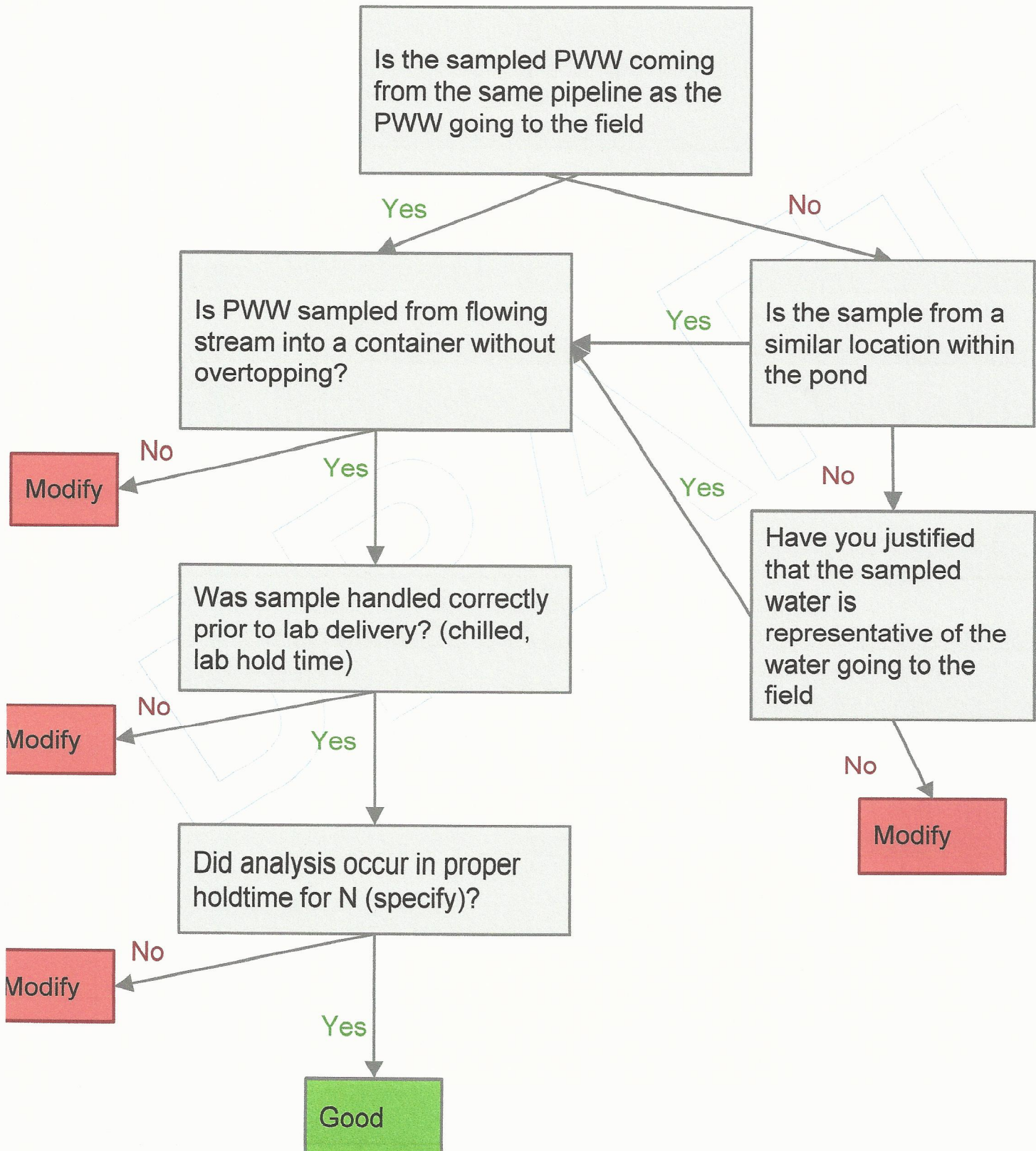
**APPENDIX A**  
**Written Decision Trees**

# Can we quantify the amount of PWW applied to each field?

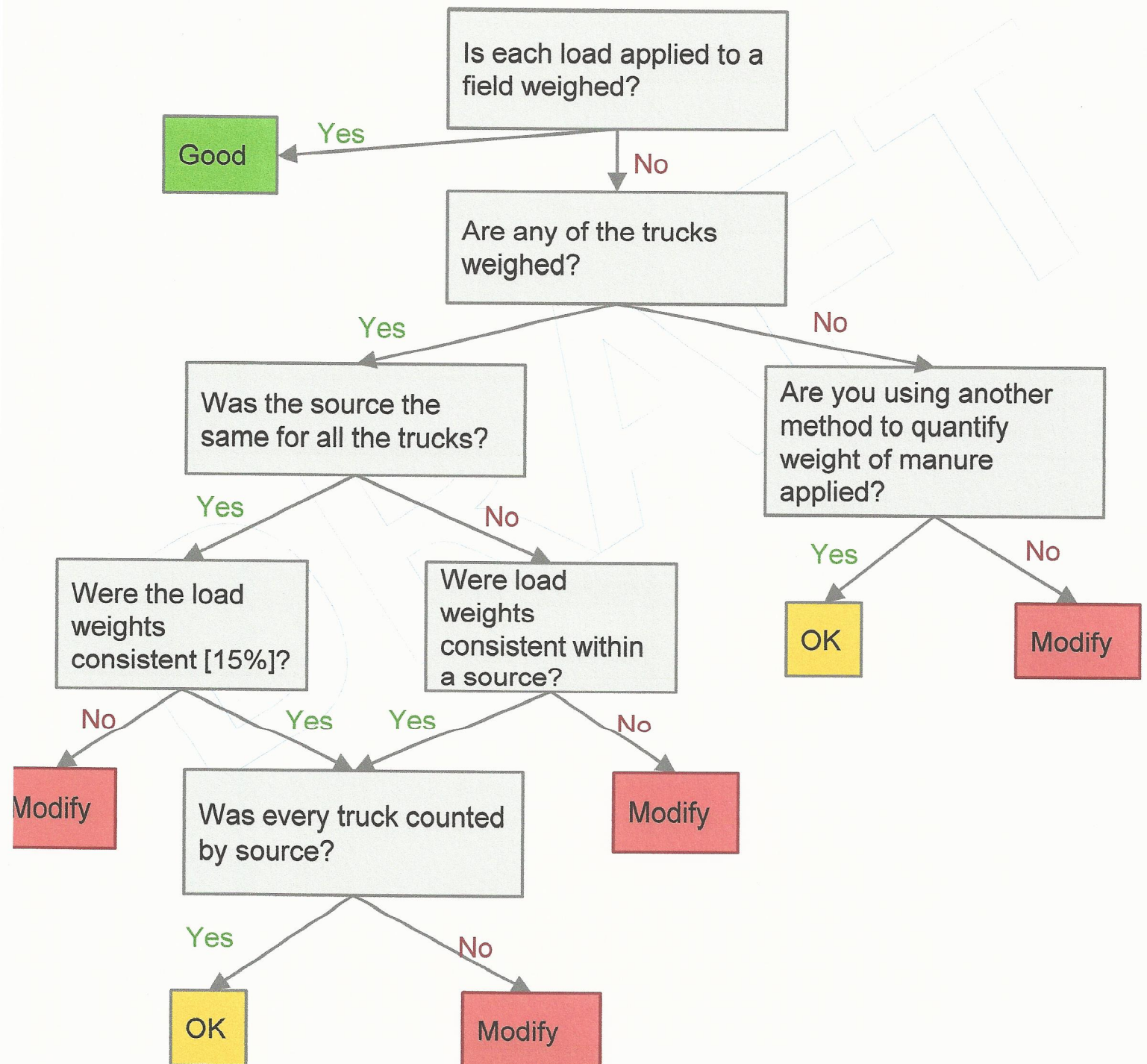


\* Tail water quantification

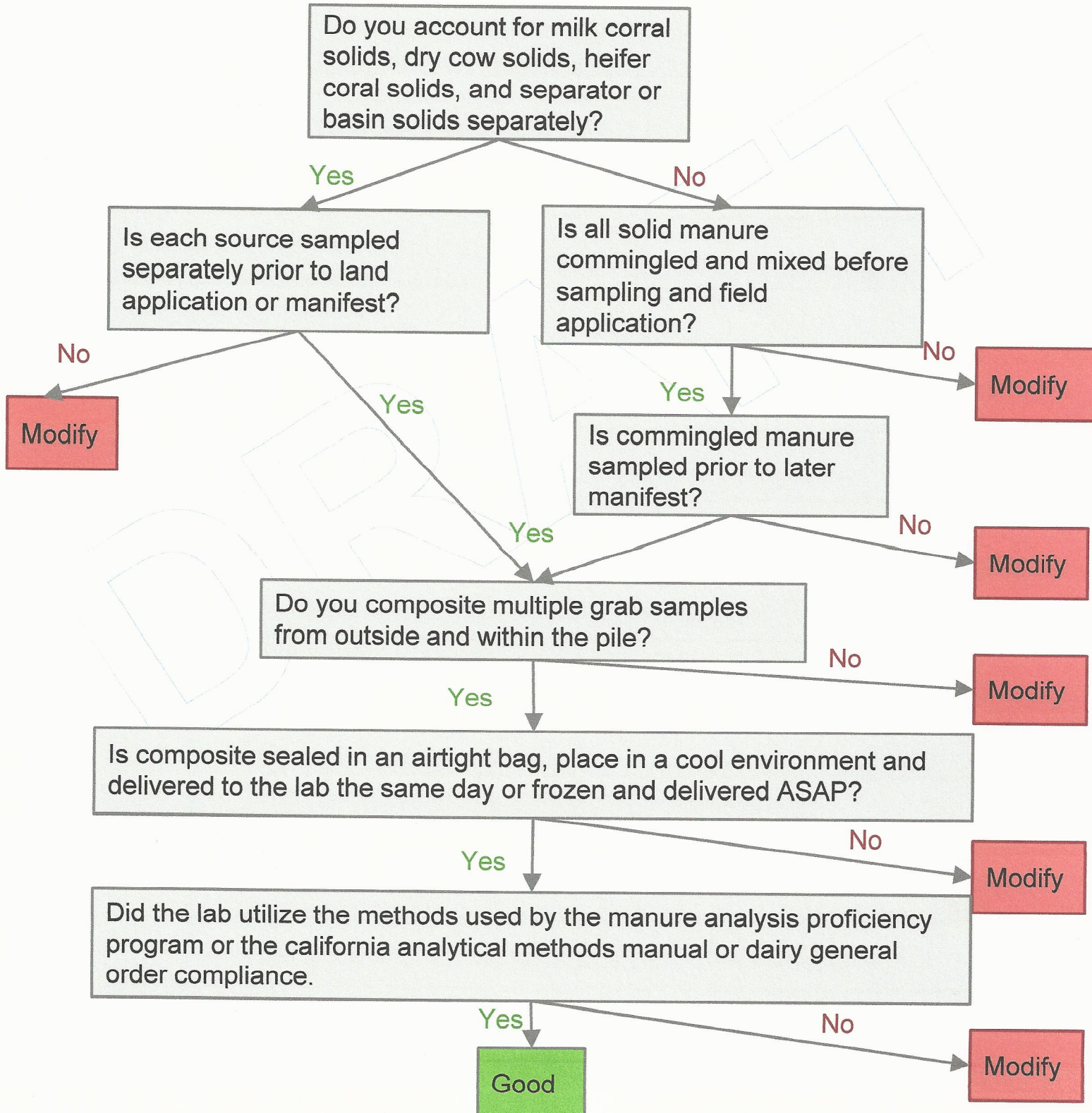
# Do the PWW nutrient concentration data reflect what is applied?



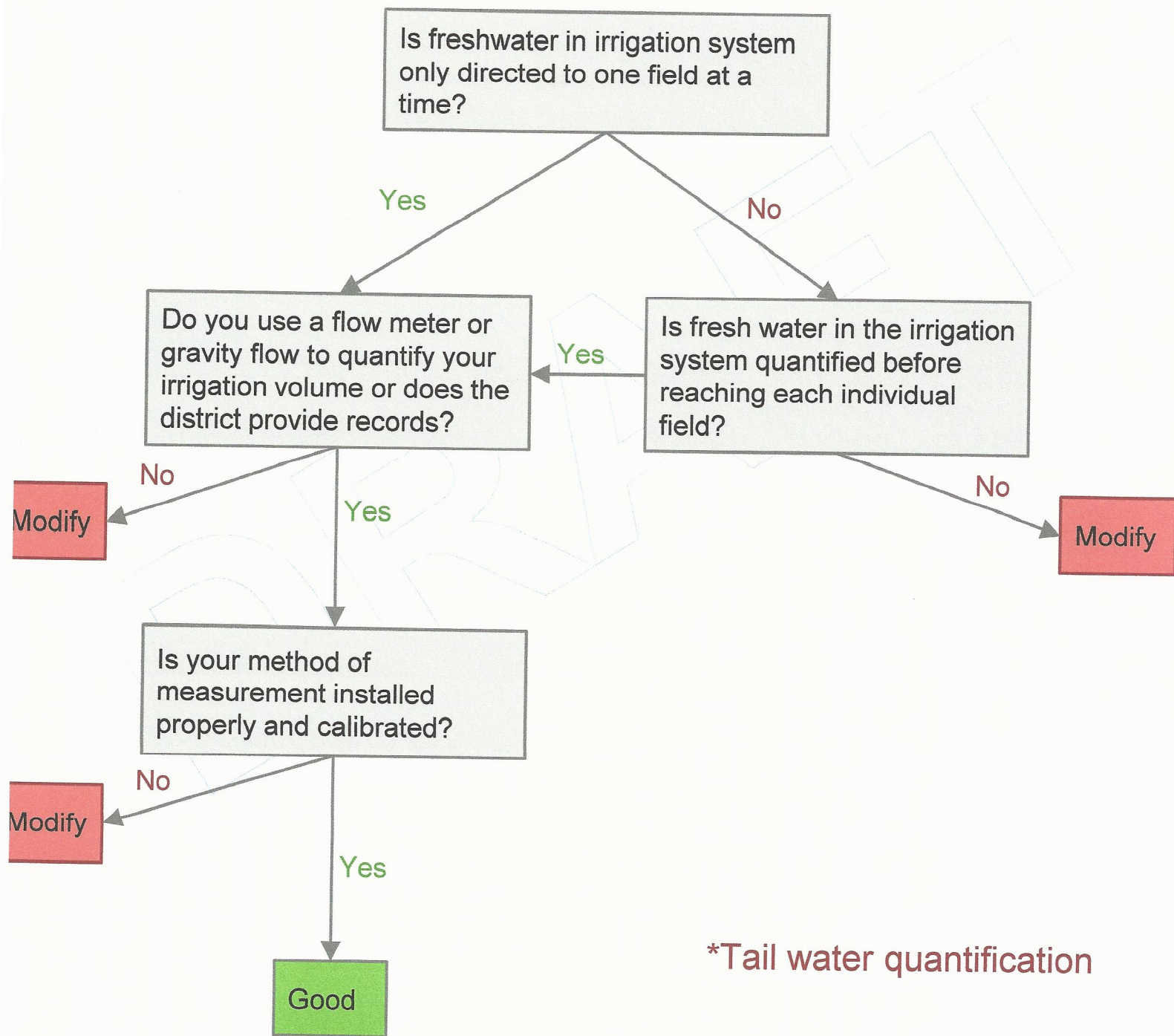
# Can we quantify solid manure (SM) applied to each field and manifested?



# Do the solid manure nutrient concentration data reflect what is applied?

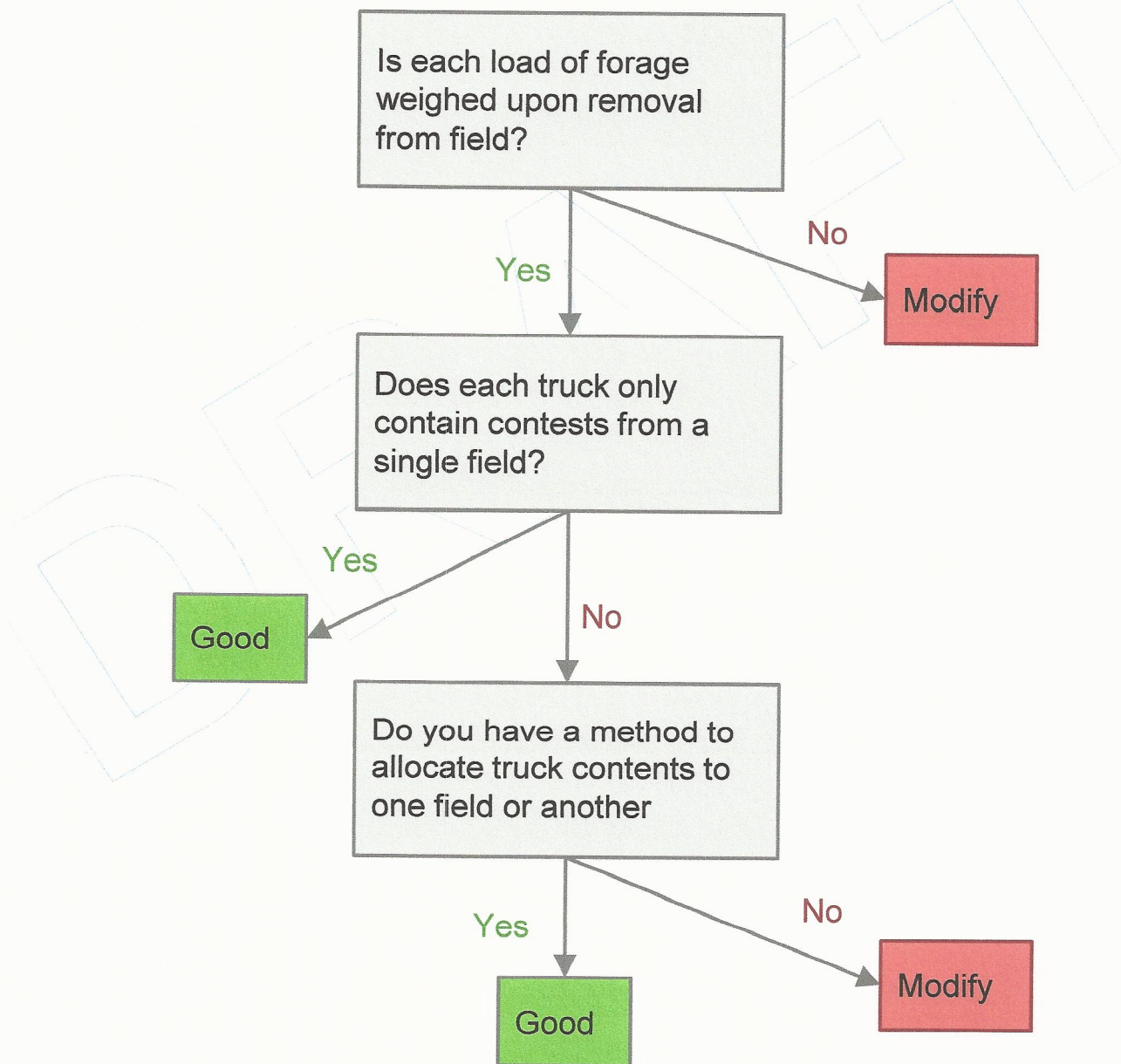


# Can we quantify the volume of the freshwater (groundwater, river water, district water) applied to each field?



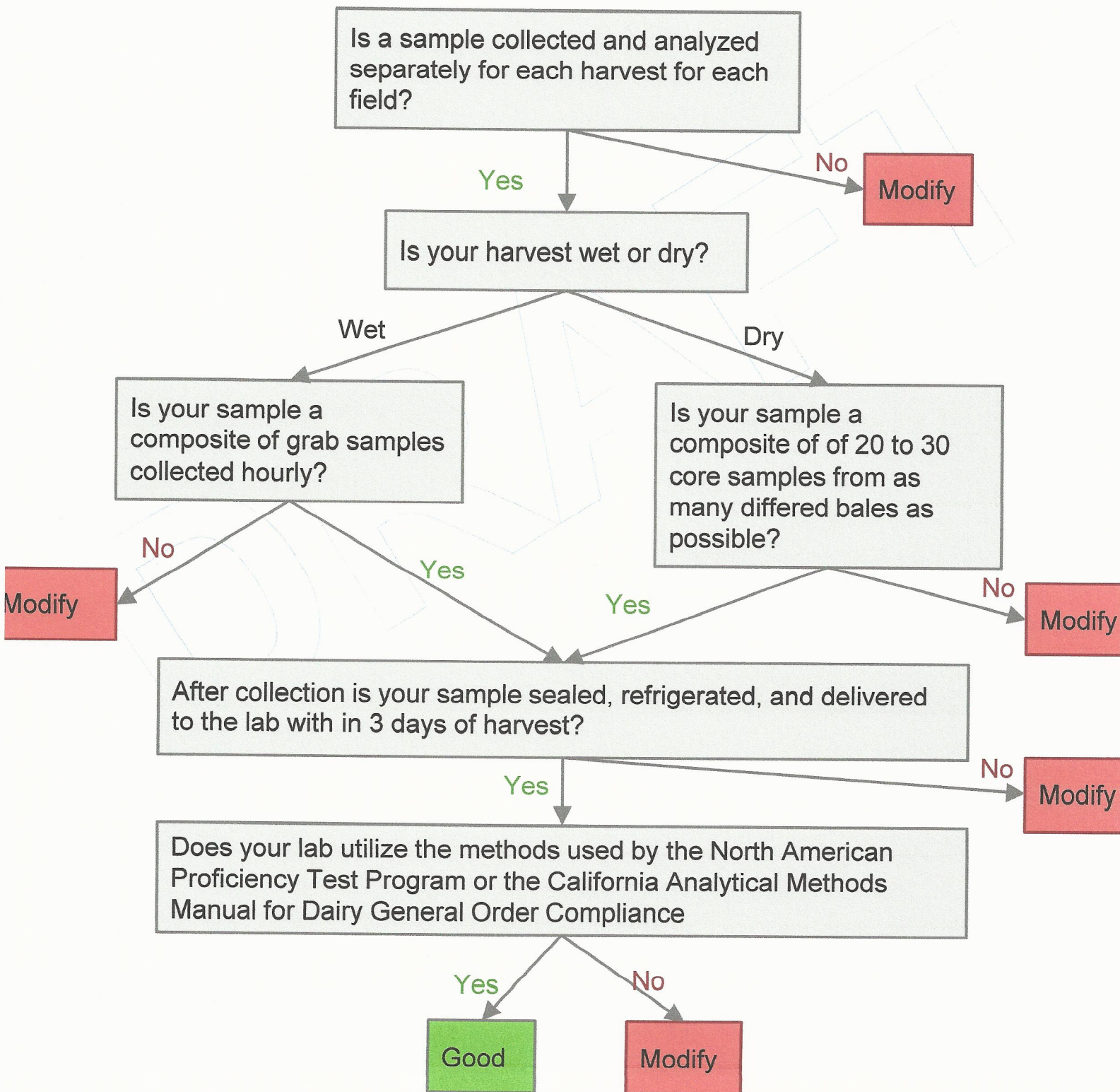


# Can we quantify the amount of plant tissue (as-is weight) removed from each field?







# Do the plant tissue nutrient and moisture concentration data reflect what is removed from each field?






**APPENDIX B**  
**Advisory Committee Meeting Information**




**CDRF-CDQAP's  
Conservation Innovation Grant**

Improving conservation practice adoption and nutrient management plan implementation through utilization of adapted decision support tree eLearning methods

1

THANKS for coming  
YOUR participation is essential  
in this process






**Topics to Cover Today**

- ✓ Background
- ✓ The CIG proposal
- ✓ How you fit in
- ✓ TIMELINE

3

**State of the WDR Situation**



- Year 7 of the WDR implementation
- MRP designed to quantify N applied & removed from each crop-field where manure is applied
- CVDRMP put in place to document if MRP is sufficient - early results indicate nitrate present in many wells.
- Monitored Annual Reports indicate estimated excretion (N,P and K) greater than accounted for
- RB staff increasing scrutiny of annual report and record-keeping numbers- more NOV's

4

## What does one do.....

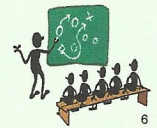
Two basic options:

1. Conclude MRP is insufficient (in which case more regulations need to be developed to further restrict N management)?
2. Take a step back & ask if the MRP is being implemented as intended?

5

Our base question centers around the latter.....

Is the MRP being implemented as intended? If not, how do we help producers better implement the MRP?



6

## Informal Survey of Partners

Last winter- to identify status of nutrient management plan (NMP) implementation:

Producers fell into 3 categories:

1. didn't necessarily know enough to know what to ask
2. knew what to do but were not fully implementing
3. were implementing & hitting the mark

7

## Consensus

- NMP exist
- Nutrient Budgets implemented in varying degrees
- It would be helpful to have something to help create the AH HA moment
- Need to get dairy operators to internalize and own nutrient management



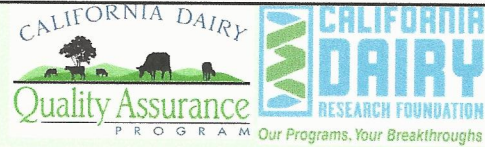
8

## How to get the job done?



- Past classroom efforts very successful - working together to get compliance with report deliverables
- Future efforts will be more at the individual farm level – need different tools

9



## CDRF-CDQAP's Conservation Innovation Grant

Improving conservation practice adoption and nutrient management plan implementation through utilization of adapted decision support tree eLearning methods

10

## CIG Project Goals

- Develop and demonstrate an online eLearning tool to:
- Support producer evaluation of current nutrient management program
  - Support nutrient specialists in discussing problems and options with their clientele
  - Support improved implementation of nutrient management

11

## The Project



To develop, field-test, evaluate, implement and monitor use of an eLearning format as an innovative approach to conservation practice adoption and nutrient management implementation.

- 8 Decision Tree tools
- Cover basic elements of nutrient mgt – solid manure, liquid manure, irrigation water, etc.

12

## The Project

### Decision Tree Concept:

- Ask as series of yes/no questions for each type of sample taken & each quantification required to identify where improvements would be useful
- Provide a venue so these questions/answers) can be discussed privately with a knowledgeable, trusted individual
- Facilitate important detailed discussions between consultants and dairy clients
- Result in a plan for improvement

13

## Your potential involvement

1. Write a letter of support for the project – Thank you.
2. Provide input & feedback on *draft* decision support trees
3. Field test the eLearning tool (set of decision support trees) when available

14

## Short-term Timeline

- One year project, Oct 2014 – Sept 2015
- Phase 1: by December 19<sup>th</sup>
  - Provide input & feedback on *draft* decision support trees - identify what is missing, what needs word “smithing”, etc.
  - Identify if you are interesting/willing to test drive the eLearning system when available. This will require at least one producer and internet access on the dairy.

15



## CIG – Decision Support Trees Advisory Team Meeting #2

eLearning Tool Alpha Version  
Demo & Discussion

## Goals for the Day

1. Provide update on program efforts since last meeting
2. Showcase eLearning alpha version of decision tree #1 as an example
3. Elicit input/feedback on first tree for going forward

## Project progress:

- First, thanks for your input on paper versions
- What have we done:
  - Evaluated potential software/formats for eLearning use
  - Developed alpha version to showcase
  - Incorporated comments received where possible
    - Many comments received related to the topic of irrigating with manure water, not specifically the direct question in the tree.

## Background about eLearning Tool

- This is a FIRST cut
- The voice/person is electronically generated
  - this will change in the final version
- Text is a start - modifications are very easy to do and will quickly translate to audio changes.
- **ASK of YOU** - Looking for input on wording, grouping, anything else?

## General/Big Picture Suggestion

Some things that seem a little wonky.

When I get to a point when I “must modify my operation,” I get stuck in red box limbo. I know nothing, even less than nothing, about programming, but instead of having to go back and change your answer to move on, can we move to the next question by hitting a button on the notes tab or something? If I am not super computer savvy, I might not realize I need to change my answer to “yes” before moving on. Or maybe I’m really not computer savvy and there is a way to do that and I didn’t figure it out at first glance. If I’m going to use the tool, I’m going to want to go through it and get an action list of everything, and then likely talk with my consultant and make a plan of implementation to get me to where I should be.

Potential options: insert an intro slide before each tree: explain to follow current practices; and alternatives suggested will include other components of this category to consider (encompass the entire tree); no cookies (files) retained by the program.

## General/Big Picture Suggestion

Some things that seem a little wonky.

On the same point, “you must modify your operation” is a little harsh to hear again and again. Is it true, yes, but if I’m going through this and all I keep hearing is “You must modify your operation” I’m going to get a little frustrated and probably start calling the lady in the suit some not so nice names. How about something like, “there are steps you can take in order to ... blah blah blah.”

Potential options: vary language... alternatives to your current management that will improve precision of estimation (or allow you to measure more precisely or something else...)

## Specific Wording Change Suggestion

For the wording, my only suggested change is : In a research project(?), A Doppler meter was used to estimate flow of liquid manure during pond dewaterings in the 1990s...

Or something to give a bit more context and/or legitimacy to the source of this information.

In the tree, I’d suggest adding a “Don’t know” option to “Is the flow meter installed properly” and “Is the flow meter calibrated...” It could still kick over to the “modify” box, but gives an option in some of the cases where the producer or irrigator truly doesn’t know if the thing is in right!



**APPENDIX C**  
**Example eLearning Program Frames**

**DairyCA**  
Decision Support System

**Menu**

- Home
- Nutrient Mass Balance
  - Tree-01: Measurement of Liquid Manure
  - Tree-02: Liquid Manure: Representative Sample
  - Tree-03: Measurement of Solid Manure
  - Tree-04: Solid Manure: Representative Sample
  - Tree-05: Measurement of Irrigation Water
  - Tree-06: Irrigation Water: Representative Sample
  - Tree-07a: Quantification of Harvested Forage Removed From Fields as Wet Feed
  - Tree-07b: Quantification of

**Decision Support System**

**DairyCA Decision Support System for California Dairy Farmers**

**Welcome**  
Welcome and thank you for joining us!

The purpose of this eLearning System is to provide a series of questions related to sampling and measuring of solid manure, liquid manure, and irrigation water applications, as well as sampling and measuring harvested forage. We hope that answering the questions will spark discussions between producers and crop consultants to identify potential opportunities to improve nutrient management on land associated with dairies. You will begin by extracting data from your last Annual Report to get an idea about where you stand regarding the whole-farm nitrogen and phosphorus balance. These numbers will be used to calculate your farm wide recovery rates (estimated application and off-site export versus amount

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**Decision Support System**

**Nitrogen Mass Balance**

Frist, please enter the amount, in pounds, of nitrogen generated, found in the "available nutrients" section of your Annual Report under Manure Generated, located in the first few pages of the report.

Next, calculate, then enter, the total amount of nitrogen transferred offsite ("total nitrogen" in the Nutrient Exports section near the front of the report) **plus** total nitrogen applied (total dry manure nitrogen plus total process wastewater nitrogen, in pounds, from the Summary of Nutrient Applications Potential Removal and Balance section, either in the front or back of your report).

Finally, click the "Evaluate" button to show your percent nitrogen recovery.

**Amount of Nitrogen Generated:** 1 lbs

**Amount of Nitrogen Applied plus Transferred offsite:** 1 lbs

**Back** **Evaluate**

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**DairyCA**  
Decision Support System

**Decision Support System**  
Nitrogen Mass Balance

**Menu**  
Home  
Nutrient Mass Balance  
Nitrogen Mass Balance  
Phosphorus Mass Balance  
Getting Ready  
Tree #1 - Measuring Liquid Manure  
**Tree #2 - Representative Sample: Liquid Manure**  
Tree #3 - Measuring Solid Manure  
Tree #4 - Representative Sample: Solid Manure  
Tree #5 - Measuring Irrigation Water Applications  
Tree #6 - Representative

The percent nitrogen recovery is above 50. Managing nitrogen recovery to 60 or 70% indicates that your farm is efficient in nitrogen use.  
Click "Next Nutrient" to continue.

Percent Nitrogen Recovery: 100

← Back      → Next Nutrient

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Decision Support System

**Decision Support System**  
Getting Ready

**Menu**  
Home  
Nutrient Mass Balance  
Nitrogen Mass Balance  
Phosphorus Mass Balance  
**Getting Ready**  
Tree #1 - Measuring Liquid Manure  
Tree #2 - Representative Sample: Liquid Manure  
Tree #3 - Measuring Solid Manure  
Tree #4 - Representative Sample: Solid Manure  
Tree #5 - Measuring Irrigation Water Applications  
Tree #6 - Representative


You'll likely want to have your Sampling Protocols and your Sampling and Analysis Plan available during this activity. Information in these documents will be useful in answering some of the questions you may encounter during the rest of this process.

Allow 5 to 15 minutes to complete each grouping of questions. You may stop at any time and resume where you left off when you return. No information is retained online, but your information will be saved as an Internet "cookie" on your computer, so you don't have to start at the beginning if you choose to end your session before you complete the entire set of trees. Click "Next" to continue.

← Back      → Next

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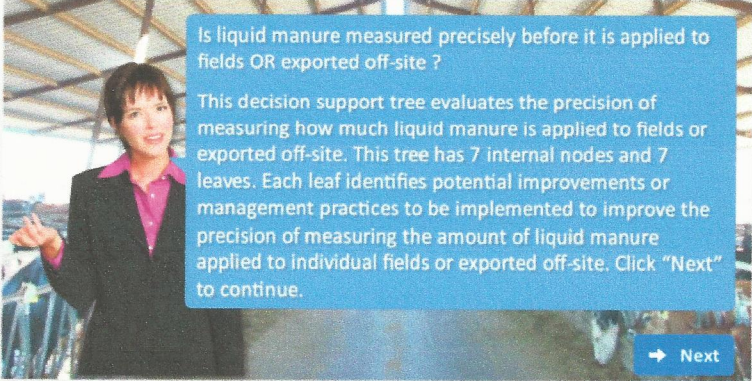


Decision Support System

Tree #1 - Measuring Liquid Manure

**Menu**

- Home
- Nutrient Mass Balance
- Tree #1 - Measuring Liquid Manure**
- Tree #2 - Representative Sample: Liquid Manure
- Tree #3 - Measuring Solid Manure
- Tree #4 - Representative Sample: Solid Manure
- Tree #5 - Measuring Irrigation Water Applications
- Tree #6 - Representative Sample: Irrigation Water
- Tree #7a - Measuring Harvested Forage (Wet)
- Tree #7b - Quantification of




Is liquid manure measured precisely before it is applied to fields OR exported off-site ?

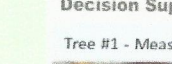
This decision support tree evaluates the precision of measuring how much liquid manure is applied to fields or exported off-site. This tree has 7 internal nodes and 7 leaves. Each leaf identifies potential improvements or management practices to be implemented to improve the precision of measuring the amount of liquid manure applied to individual fields or exported off-site. Click "Next" to continue.

→ Next

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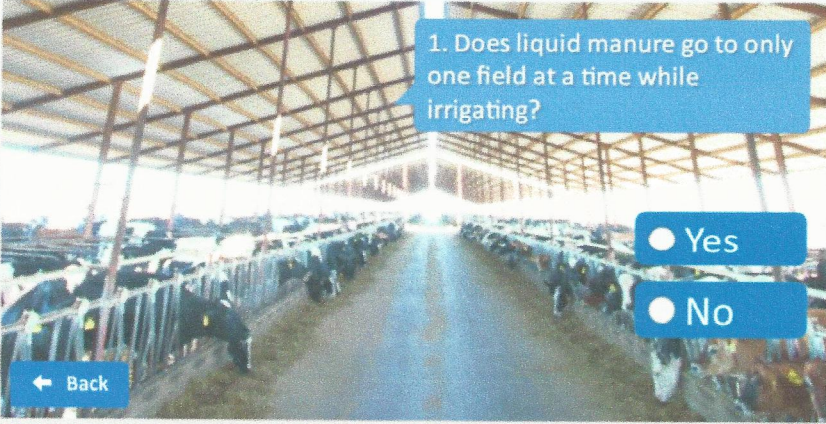


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Decision Support System

Tree #1 - Measuring Liquid Manure




1. Does liquid manure go to only one field at a time while irrigating?

← Back

Yes

No

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Decision Support System

Tree #1 - Measuring Liquid Manure

3. Is liquid manure volume measured before reaching the destination field or being exported off-site?

Yes

No

← Back

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Decision Support System

Tree #1 - Measuring Liquid Manure

6. **Why is this important?** It's important, and required, to calculate nutrient application to each field at each application event or off-site export event. The amount of lagoon water applied is an important part of this calculation to be able to document the nutrients applied to each field or exported off-site. If only one field is irrigated through a pipeline at a time, measurement of water leaving the lagoon is precise for what is entering the field. Volume of liquid manure delivered is used in combination with nutrient concentrations from lagoon samples to calculate the pounds of nitrogen, phosphorus, and potassium applied to each field with each irrigation of liquid manure, or exported off-site. Discuss with your consultant how to modify your facility to achieve more precise estimates of liquid manure applications or exports. NRCS Practice Standard 587, Structure for Water Control, may be a useful technical source of information and potential financial assistance.

Click the Create PDF button to document your responses and to see information about practices that could improve the way liquid manure application volume is measured on your dairy. The file will open in a new window and you may save or print the document for your records. Close the window to return to this screen, then click "Next" to proceed to the next section.

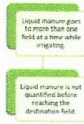
→ Next

Create PDF

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Tree #1 – Measurement of Liquid Manure



Tree 1, Leaf 6  
Scenario – You've identified that the volume of liquid manure is not measured before reaching the destination field or fields.

**Why is this important?** It's important, and required, to calculate nutrient application to each field at each application event or off-site export event. The amount of lagoon water applied is an important part of this calculation to be able to document the nutrients applied to each field or exported off-site. If only one field is irrigated through a pipeline at a time, measurement of water leaving the lagoon is precise for what is entering the field. Volume of liquid manure delivered is used in combination with nutrient concentrations from lagoon samples to calculate the pounds of nitrogen, phosphorus, and potassium applied to each field with each irrigation of liquid manure, or exported off-site. Discuss with your consultant how to modify your facility to achieve more precise estimates of liquid manure applications or exports. NRCS Practice Standard 587, Structure for Water Control, may be a useful technical source of information and potential financial assistance. Keep in mind, once you're able to determine how much lagoon water went to each field (with a proper flow meter that is installed and calibrated according to manufacturer's specifications and read before and after each irrigation to each field), the amount of nutrients applied should be calculated using lab results from representative lagoon water samples.

To accurately determine nutrient application rates for liquid manure, you also want to be sure you're obtaining a representative sample for nutrient analysis. Determining how much liquid manure is applied during each application event to each field is only part of nutrient management needs. In addition:

- Be sure the liquid manure is thoroughly mixed with other irrigation sources so the water entering the field from each open valve has the same nutrient concentration.
- Be sure to have equipment in place to vary the flow of liquid manure into the irrigation system based on the nutrient concentration of liquid manure.
- Be sure the flow rate of liquid manure is consistent over the irrigation, even when flushing of cow lanes occurs.
- Be sure water is distributed uniformly across checks during the irrigation event.

NRCS funds may be available to have a 102 Comprehensive Nutrient Management Plan (CNMP) developed. The CNMP will provide a comprehensive evaluation of your facility and site and your consultant in identifying the best combination of practices and actions to implement for your specific situation.

Other potentially useful NRCS Practices:

- 634 Waste Transfer (Pipeline)
- 430 Irrigation Pipeline
- 587 Structure for Water Control (Tarnout, Mixing Box, V-Notch Gate Valve)
- 533 Pumping Plant (Variable Frequency Drive, Pump)

Funds to offset the costs of these practices may be available through your local NRCS office. More information about irrigation water management is available at this [nutrient link](#).

This project was funded by the California Dairy Research Foundation (P-15-019-UCD-DM-5471) and the USDA Natural Resources Conservation Service (grant 69-1875-14-280).



**APPENDIX D**  
**Professional/Producer Written Evaluation Survey**

## CIG Decision Tree Evaluation Form

Tool Evaluator Name/Business: \_\_\_\_\_

Participating Dairy Name: \_\_\_\_\_

Date of Completion: \_\_\_\_\_

Thank you for participating in the on-farm beta testing phase of the tool. Your time and effort spent reviewing the trees is greatly appreciated. Your candid input and feedback will assist in tool modification and ensuring that the most useful tool is developed.

Driving questions for your input as you review the tool:

- ✓ Are the right questions being asked within the tree?
- ✓ Is there adequate detail to be useful?
- ✓ Is the question wording understandable and appropriate given typical California systems?
- ✓ Are recommendations at the various nodes useful?
- ✓ Suggestions for improvement should be provided when gaps are identified within the existing tool decision trees and management option pages as well as recommendations for future additions/augmentations to the tool which may prove useful to support improved dairy producer nutrient management plan implementation.

**On the following pages, you'll find a list of the questions that were asked by the tool. Please consider the appropriateness or utility, the clarity, and the wording of each question, and circle the number(s) of any that seem problematic to you. Also, please provide specific suggestions regarding gaps or problematic questions (e.g. *Suggest adding a question here or revising this question to ask about time since last calibration because it will alert producer to need for periodic re-calibration and importance of operation and maintenance planning.*)**



**Tree #1 – Determining the volume of liquid manure applied to fields**

1. Does liquid manure go to only one field at a time while irrigating?
2. Is liquid manure quantified before reaching the destination field?
3. Does liquid manure quantification occur for each field?
4. Is liquid manure quantified using a flow meter?
5. Is the flow meter installed properly?
6. Is the flow meter calibrated according to manufacturer’s specifications?
7. Is the flow meter always read before and after each irrigation to each field?

Which questions seem unnecessary or redundant?

1      2      3      4      5      6      7

Which questions are difficult to understand?

1      2      3      4      5      6      7

Please explain the difficulty:

---

---

Which questions need to be re-worded for clarity or meaning?

1      2      3      4      5      6      7

Please suggest some language for us:

---

---

Additional questions or clarification of the questions that were asked:

---

---

**Tree #2 – Obtaining a representative sample of liquid manure**

1. Did the sampled process wastewater (liquid manure) originate from the same pump/pipeline as the wastewater that is applied to fields?
2. Was the process wastewater sample collected from straight (undiluted) water flowing through a pipeline or standpipe?
3. Was the process wastewater sample obtained from location in the pond near to the pipeline used for irrigations?
4. Was the process wastewater sample collected directly into the sample container without overflowing of the container?
5. Was the process wastewater sample chilled and delivered to the analytical laboratory within 24 hours of being collected?
6. Was the laboratory analysis begun within 24 hours?

Which questions seem unnecessary or redundant?

1      2      3      4      5      6

Which questions are difficult to understand?

1      2      3      4      5      6

Please explain the difficulty:

---

---

Which questions need to be re-worded for clarity or meaning?

1      2      3      4      5      6

Please suggest some language for us:

---

---

Additional questions or clarification of the questions that were asked:

---

---

**Tree #3 – Quantification of Solid Manure applied to fields or manifested off-site**

1. Do you land apply, or manifest off-site, solid manure from more than one source (for example: corral solids and lagoon sludge, or corral solids and separator solids, etc.)?
2. Do you weigh each truckload of manure as it leaves the production area?
3. Do you weigh three or more truckloads of solid manure?
4. If the difference between the weight of the heaviest load and the weight of the lightest load is more than 10% of the weight of the lightest load, do you weigh additional loads?
5. Do you count the number of truckloads applied to each field and complete a solid manure manifest for each truckload that is exported offsite?
6. Do you calculate the total weight of solid manure that is applied to each field?
7. Do you count the number of truckloads applied to each field and complete a solid manure manifest for each truckload that is exported offsite?
8. Do you calculate the total weight of solid manure that is applied to each field?
9. Do you weigh each truckload from each source of solid manure as it leaves the production area?
10. Do you count the number of truckloads applied to each field and complete a solid manure manifest for each truckload that is exported offsite?
11. Do you calculate the total weight of solid manure from each source that is applied to each field?
12. Do you weigh three or more truckloads from each source of solid manure?
13. If the difference between the weight of the heaviest load and the weight of the lightest load is more than 10% of the weight of the lightest load, do you weigh additional loads from each source?
14. Do you count the number of truckloads applied to each field and complete a solid manure manifest for each truckload that is exported offsite?
15. Do you calculate the total weight of solid manure from each source that is applied to each field?

Which questions seem unnecessary or redundant?

1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	

Which questions are difficult to understand?

1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	

Please explain the difficulty:

---

---

Which questions need to be re-worded for clarity or meaning?

- |   |   |    |    |    |    |    |    |
|---|---|----|----|----|----|----|----|
| 1 | 2 | 3  | 4  | 5  | 6  | 7  |    |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |

Please suggest some language for us:

---

---

Additional questions or clarification of the questions that were asked:

---

---

**Tree #4 – Obtaining a representative sample of solid manure**

1. Do you sample the different sources of solid manure described in your Sampling and Analysis Plan separately (for example: milk cow corral solids, heifer corral solids, settling basin or solid separator material)?
2. Is each source of solid manure sampled separately prior to land application or at the time of manifesting manure off-site?
3. Is all solid manure commingled and mixed thoroughly into a single source before sampling?
4. Does the sampling protocol used require compositing multiple grab samples from material taken from the inside and the outside of piles?
5. Is the composite sample sealed in an airtight labelled bag, chilled on ice or refrigerated and delivered to the laboratory on the day of sampling, or frozen and delivered to the laboratory as soon as possible?
6. Does the lab utilize the methods used by the Manure Analysis Proficiency program or the California Methods Manual for Dairy General Order Compliance?

Which questions seem unnecessary or redundant?

1      2      3      4      5      6

Which questions are difficult to understand?

1      2      3      4      5      6

Please explain the difficulty:

---

---

Which questions need to be re-worded for clarity or meaning?

1      2      3      4      5      6

Please suggest some language for us:

---

---

Additional questions or clarification of the questions that were asked:

---

---

### Tree #5 – Quantification of irrigation water applications

1. Is fresh water measured with a flow meter as it goes onto each field for each application?
2. Are meters calibrated according to the manufacturer's recommendations?
3. Are records maintained to document how much fresh water was applied to each field in each irrigation (meter reading before and after each irrigation event or irrigation start and finish time)?
4. Is each fresh water source measured independently (district water, each well) using an alternate method?
5. Is the precision of estimating the amount of water from each source within 15% of actual water delivery (as verified with a calibrated flow meter or a pump test)?
6. Is flow rate verified more than once during the irrigation season for each irrigation source?
7. Is irrigation water applied to one field at a time or is there a way to determine how much water is distributed from the irrigation system to each field if multiple fields are irrigated at once?
8. Is the method used to determine water application to each field within 15% of actual water delivery (as verified with a calibrated flow meter or a pump test)?
9. Are records maintained to document how much fresh water was applied to each field in each irrigation (date of irrigation, start and end time, water sources, flow rate from each source)?

Which questions seem unnecessary or redundant?

1      2      3      4      5      6      7      8      9

Which questions are difficult to understand?

1      2      3      4      5      6      7      8      9

Please explain the difficulty:

---

---

Which questions need to be re-worded for clarity or meaning?

1      2      3      4      5      6      7      8      9

Please suggest some language for us:

---

---

Additional questions or clarification of the questions that were asked:

---

---

**Tree #6 – Obtaining a representative sample of irrigation water**

1. Do you use river and/or Irrigation District water as your only fresh water source for irrigation?
2. If groundwater wells are used as all or a portion of your fresh water source for irrigation, is each source ( groundwater well and/or surface water) used for irrigating crops sampled at least once a year?
3. Do you receive an annual water analysis with the water?
4. Were your samples collected and preserved according to an *approved* sampling protocol identified in your Sampling and Analysis Plan?
5. Do you sample each surface water source used for irrigating each year?
6. Were your samples analyzed by a laboratory accredited by the Environmental Lab Accreditation Program (ELAP) for Field of Testing 108?

Which questions seem unnecessary or redundant?

1      2      3      4      5      6

Which questions are difficult to understand?

1      2      3      4      5      6

Please explain the difficulty:

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Which questions need to be re-worded for clarity or meaning?

1      2      3      4      5      6

Please suggest some language for us:

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Additional questions or clarification of the questions that were asked:

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**Tree #7 – Quantification of plant tissue removed, Part a. Wet Feeds**

1. Is every load of chopped forage weighed between when the trucks leave the field and when loads are dumped at the silage pile or fed to cattle as greenchop?
2. Is the weight of each load of chopped forage tracked by field of origin?
3. Is the number of loads of forage removed from each field tracked?
4. Are multiple loads of chopped forage weighed from each field (at least three per field, or more for larger fields)?

Which questions seem unnecessary or redundant?

1      2      3      4

Which questions are difficult to understand?

1      2      3      4

Please explain the difficulty:

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Which questions need to be re-worded for clarity or meaning?

1      2      3      4

Please suggest some language for us:

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Additional questions or clarification of the questions that were asked:

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**Tree #7 – Quantification of plant tissue removed, Part b. Dry hay**

1. Is the bale count recorded by field and cutting (or harvest) for each field where manure was applied?
2. Are all stacks weighed by field?
3. Are some stacks or bales weighed from each cutting or harvest from each field?
4. Are all stacks weighed by cutting (or harvest) by field?

Which questions seem unnecessary or redundant?

1      2      3      4

Which questions are difficult to understand?

1      2      3      4

Please explain the difficulty:

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Which questions need to be re-worded for clarity or meaning?

1      2      3      4

Please suggest some language for us:

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Additional questions or clarification of the questions that were asked:

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**Tree #8 – Obtaining a representative plant tissue sample, Part a. Wet feeds**

1. Do you harvest forage from land where manure was applied during the cropping season to feed as greenchop, silage, or haylage?
2. Does the sampling protocol used require making composites of multiple grab samples collected as chopped forage is delivered to the feed area or silage pile?
3. Are grab samples well mixed (in a larger container like a five gallon bucket) for the composite?
4. Does the sampling protocol used require making a composite of multiple grab samples taken from inside and outside of piles after chopped forage is piled?
5. Is each composite sample sealed in an airtight labelled bag, chilled on ice or refrigerated, and delivered to the lab on the day of sampling; or frozen and delivered to the lab as soon as possible?
6. Does the lab participate in the North American Proficiency Testing Program?
7. Does the lab utilize the methods used by the NAPT or the California Methods Manual for Dairy General Order Compliance?

Which questions seem unnecessary or redundant?

1      2      3      4      5      6      7

Which questions are difficult to understand?

1      2      3      4      5      6      7

Please explain the difficulty:

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Which questions need to be re-worded for clarity or meaning?

1      2      3      4      5      6      7

Please suggest some language for us:

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Additional questions or clarification of the questions that were asked:

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