

APPENDIX VII

NMP OUTREACH PACKET SAMPLE

TABLE OF CONTENTS

NMP Outreach Packet Sample	2
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NMP OUTREACH PACKET SAMPLE

Section 1

Your 2015 NMP Summary Report

Member ID # XXXX

Below is the information you reported to the SJCDWQC in your Nitrogen Management Plan (NMP) Summary Report.

If any of this information does not match your records, please contact the Coalition to update your information.

Management Unit				Applied-N (pounds/acre)	Applied-N/ Yield	Yield per acre		
Name	Crop	Age	Acres	A	A/Y	Y	Units	Notes
Almond	ALMONDS	> 4	89	200	0.0714	2801	Pounds	-

Notes:

GWR – Almonds yield reported as gross weight (hulls, shells and kernels).

NB – Non-Bearing crop.

NC – Non Crop.

NNA – Nitrogen Not Applied.

NR – Crop age not reported.

NY – No Yield harvested.

RC – Result was Confirmed or Changed since reporting based on new information from the grower.

Y – Yield is calculated from your A/Y.

Section 2

Nitrogen Use Evaluation: ALMONDS

Member ID # XXXX

Management Unit	Crop Age	Applied-N/ Yield-pounds	Applied-N (pounds/acre)	Removed-N (pounds/acre)	Applied-N – Removed-N
Name	Age	A/Y-lbs*	A	R**	A – R
Almond	> 4	0.0714	200	190	10

* All Yields were converted to pounds. A/Y-lbs may differ from your reported A/Y if you reported yield in units other than pounds.

** R estimates are based on the assumption that nitrogen removed at harvest for ALMONDS is 0.068 pounds of N per lbs of marketable kernels.

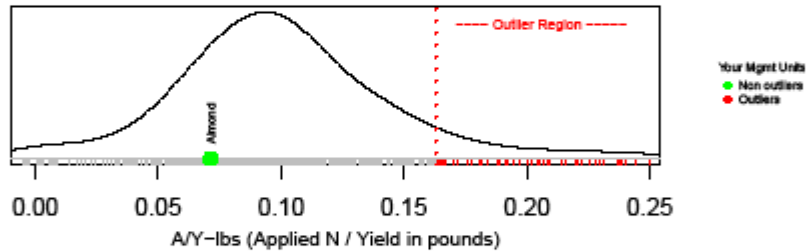
How Do Your Management Units Compare To All Other ALMONDS Growers?

555 Coalition members reported on 941 ALMONDS Management Units.

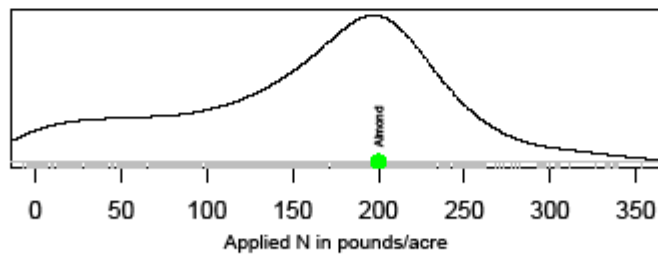
Median A/Y-lbs = 0.1 A/Y-lbs values larger than 0.1629 are considered outliers.

Median A = 180 pounds/acre

Your A/Y-lbs Compared To All Other ALMONDS Growers



Your Applied N Compared To All Other ALMONDS Growers



If you have two or more Management Units with the same A/Y-lbs or A, the points will overlap in the figures.

NITROGEN EVALUATION REPORT

Frequently Asked Questions

FAQ 1. *What does my A/Y mean?*

A/Y represents how much nitrogen you applied per unit of crop yield harvested. The lower this number is, the more efficient your nitrogen usage, and the lower the likelihood that you are leaching nitrogen into the groundwater.

FAQ 2. *What is a 'good' A/Y?*

For now there are no target A/Y values. This is because not only is more information needed to know the optimal range for each crop type, A/Y is also a simplified way of looking at nitrogen usage on a farm. Therefore, A/Y* is not always reflective of the actual conditions on the field. There are many factors that can contribute to nitrogen efficiency that are not captured by the A/Y* value. Generally speaking, however, the lower the A/Y*, the more efficiently an operation is using their nitrogen sources.

FAQ 3. *I didn't report a yield, how did you get this information?*

If you did not report a yield with your NMP Summary Report, the Coalition uses the A/Y ratio and the amount of nitrogen applied to back-calculate the yield. If your yield looks different from what you harvested, it is important to contact the Coalition to update your information.

FAQ 4. *What is "R" and how is that number determined?*

"R" (or nitrogen removed) is an estimate of how much nitrogen was removed from the field at harvest. A nitrogen removed coefficient is determined using best available literature and studies that evaluate the amount of nitrogen removed per pound of yield. For each crop with a coefficient, the Coalition multiplies yield (pounds/acre) times the coefficient (nitrogen removed/pound) to determine the amount of nitrogen removed per acre or "R". These coefficients are developed by scientific studies throughout the Central Valley, and as such are subject to change over time.

FAQ 5. *What does my 'A-R' tell me?*

The 'A-R' value reported in Section 2 is a comparison of how much nitrogen you applied versus the amount estimated amount that was removed during harvest. If this value is positive, there may be some nitrogen applied to the crops for that field that was not removed during the harvest (estimated by yield). However, the removed value, and therefore the A-R estimate, does not take into account field specific differences that would affect the amount of nitrogen volatilized, denitrified in the soil, or taken up by a permanent crop for growth and storage (e.g. tree and vine growth).

FAQ 6. *What do the bell curves tell me?*

The bell curves in Section 2 represent all Coalition growers with the same crop who reported A/Y values in the same crop year. The peak of the "bell" is where the values for most management units or fields fall. If there were not enough data to generate a bell curve, Section 2 indicates this.

NITROGEN EVALUATION REPORT

FAQ 7. What is an outlier?

Statistics are performed to determine which management units (or fields) are in the top 10% of the distribution; A/Y ratios in the top 10% are outliers. The distribution is based on the reported A/Y ratios of other members growing the same crop. Since this is relative to other reported A/Y ratios, being an outlier may change from year to year.

FAQ 8. How can I tell if I'm an outlier?

On the first diagram of Section 2, if you have any management units that fall to the right of the red line, they are considered outliers. These dots will also be colored red, while those that are not outliers will be colored green.

FAQ 9. Why would my reported A/Y be an outlier?

The three most common causes for being an outlier include: 1) Lower yields than expected, 2) Relatively higher amounts of nitrogen applied, and/or 3) Inefficient irrigation.

FAQ 10. What should I do if I'm an outlier?

If you have a field or management unit labeled as an outlier, a first step would be to talk to a Certified Crop Advisor (CCA), an agronomist or local University of California farm advisor who specializes in your crop. You should also double check the nitrogen applied information you reported to us to make sure it is correct.

FAQ 11. What should I do if my reported information in Section 1 is incorrect?

If the data in Section 1 of this packet does not accurately reflect the information submitted to the Coalition, please contact the Coalition to update your information.

FAQ 12. What will you do with my nitrogen use information?

The Coalition stores your reported applied nitrogen and A/Y from year to year and summarizes this information for compliance with the Regional Water Board. Summary reports to the Regional Water Board includes an evaluation of outliers and summary statistics; individual records are not reported. The Coalition will evaluate changes in nitrogen applied and A/Y ratios from year to year to determine any trends in nitrogen use. The overall goal with the NMP Summary Reports and Nitrogen Evaluation Reports is to encourage growers to have better nitrogen management and reduce the amount of nitrogen leaching to groundwater.

FAQ 13. Will the Regional Water Board do anything with my nitrogen use information?

It is not anticipated that a single season A/Y number that is considered an "outlier" will mean that the management unit or field is "out of compliance" or subject to enforcement actions. The Coalition will evaluate data using running averages over multiple years and work with growers to better understand reasons for high A/Y ratios such as seasonal variability of production, unexpected low yields, and weather conditions.

FAQ 14. What should I do with this information?

The content of this packet is purely informational. We encourage you to use it to inform your nitrogen management decisions in the future; no further action is required unless you have fields / management units considered an outlier. If your field A/Y is an outlier, you may be contacted by your Coalition in the future to fill out additional information regarding nitrogen management practices.

NITROGEN EVALUATION REPORT

FAQ 15. *How can I improve my A/Y ratio?*

There are many factors that could be adjusted to reduce your A/Y. Along with reducing the amount of nitrogen applied, adjustments to the types of fertilizers, the timing, or method of applications could increase yields.

FAQ 16. *How can I learn more?*

There are many great resources about fertilizer guidelines and recommendations available for growers to use. For growers in California, the California Department of Food and Agriculture (CDFA) Fertilizer Research and Education (FREP) program (<https://www.cdfa.ca.gov/is/ffidrs/frep/index.html>) and the UC Cooperative Extension (<http://ucanr.edu>) are two of the best places to start.