



Calculating Nutrient Application from Liquid Manure Irrigations for Potassium and Phosphorus (Worksheet 3)

Marsha Campbell Mathews¹ and Jennifer Heguy²

¹Agronomy Advisor, University of California Cooperative Extension

²Dairy Advisor, University of California Cooperation Extension

Calculations for Phosphorus and Potassium (worksheet 3):

Compliance reporting requires total elemental phosphorus and potassium. Enter lab results for these in columns G & H. The calculation for the amount of phosphorus (P) and potassium (K) is completed similar to the nitrogen calculations, by multiplying the concentration by the thousand gallons applied by the 0.008345 factor (columns I and J). To calculate pounds applied per acre divide by number of acres included in the application area. Fertilizer P and K is traditionally reported as P₂O₅ and K₂O equivalent. When you discuss fertilizer applications with your crop consultant the P and K needs for your crop will be provided in these units. To convert the elemental P and K values in your liquid manure to their fertilizer equivalents, multiply phosphorus (P) by a factor of 2.27 and potassium (K) by a factor of 1.2 – enter these values in columns M & N.

Information in this document was compiled by UCCE and CDQAP to assist dairy producers in understanding and complying with the General Order Waste Discharge Requirements for Existing Milk Cow Dairies (Central Valley Regional Water Board Order R5-2007-0035). Effort has been made to ensure accuracy, but these summaries are not official regulatory guidance and are not legal advice. Producers are advised that these summaries are not intended to be a substitute for producers reading the complete order and consulting their own legal counsel to ensure compliance with the waste discharge requirements. Should any information here conflict with the General Order and/or official information provided by the Regional Board, Board-provided information takes precedence.