

Answer on Question #80860 - Chemistry - General Chemistry

Question:

if the concentration of p in the soil is 50 ppm and the crop to be planted requires an amount of 300 kg/ha of P. how much P₂O₅ in kg/ha should be added to the soil in order to meet the crop demand?

Solution:

$m = 300 \text{ kg in } 1 \text{ ha}$

$c = 50 \text{ ppm} = 50 \text{ mg/kg}$

So, in 1 ha: $m(\text{P}_2\text{O}_5) = 300 * 50 = 15000 \text{ mg} = 15 \text{ g} = 0.015 \text{ kg}$;

So, concentration: 0.015 kg/ha.

Answer: 0.015 kg/ha.