

CALCULATION OF DOSES / CONCENTRATIONS OF DIFFERENT INSECTICIDE FORMULATIONS

All insecticides are toxic not only to insects but also to warm blooded animals including man. Active ingredients of pesticides are generally available in concentrated forms with primary producers. They have to be diluted and formulated as per recommended concentration or strength and it varies with the nature of pest and the type of crop to be treated.

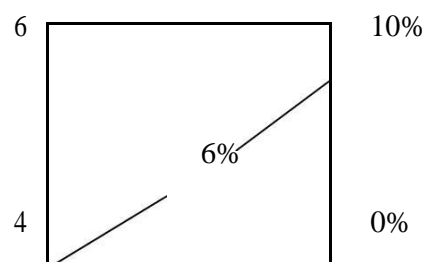
The dilution of dusts requires a certain quantity of talc to be mixed with to reduce the concentration of the dust and for dilution.

Method

Rectangular method is generally used, where in the centre of the rectangle, the percentage of required concentration of dust is given and on the right hand side top corner, highest concentration of the dust available and on the right side corner bottom, lower concentration to be given. The values are diagonally subtracted and represented on left hand side top and bottom corners.

Example:

A chickpea farmer has advised to dust 6% Malathion dust for control of gram pod borer in his 3 acres of field at the rate of 10kg/acre. Calculate the quantity of talc he has to purchase from the market for diluting the 10% malathion dust available with him.



a) 6kg of 10% dust has to be mixed with 4 kg of talc to get 10kg of 6% dust.

b) For getting 10kg of 6% malathion dust, the requirement of talc is 4kg and for getting 30kg (for 3 acres) of 6% dust, the requirement of talc is $4/10 \times 30 = 12\text{kg}$.

c) For getting 10kg of 6% dust, the requirement of malathion is 6kg and for getting 30kg (for 3 acres) of 6% dust, the requirement is $6/10 \times 30 = 18\text{kg}$.