



Not = all measurements in meters

Slab area of slab (m^2)

PopM = plants per meter row plants/meter

PopA = plant population per m^2 plants/ m^2

RS = Row Spacing (m)

D = distance between plants

$$\text{Distance between plants} = \frac{1}{\text{PopM}} = D$$

$$\text{Area per plant} = RS \times D = \frac{RS(m)}{\text{PopM}} = \frac{RS(m)}{\text{PopM} \cdot 100}$$

$$\text{Plants per } m^2 (\text{PopA}) = \frac{\text{PopM}}{RS} = \frac{1}{\text{Area per plant}}$$

$$\text{Area of Slab} = 1 \times RS$$

Ratio of area of slab to Area per plant

$$\frac{1 \times RS}{\frac{RS}{\text{PopM}}} = \text{PopM}$$

to scale uptake from

1. Plant to slab multiply uptake by $RS \div RS \times \text{PopM}$
2. multiply again by Emult if plant is not at center

We want the ratio of the
area of the Slab to the area for a plant

the slab is $\text{Row Sp} \times 1 \text{ cm}$ Since Row Spacing
is given in cm
in meters it is

$$\frac{\text{Row sp} \times 1 \text{ cm}^2 \cdot \text{m}^2}{10,000 \text{ cm}^2}$$

$$= \frac{\text{Row Spacing}}{10,000}$$

The area of a plant is RS . Distance between plants

$$= \text{RS} \cdot \frac{1}{\text{PopM}}$$

If RS is in cm we have

$$\frac{\text{RS} \cdot 1 \text{ m/cm}}{\text{PopM} \cdot 100 \text{ cm}}$$

area of plant is $\frac{\text{RS}}{\text{PopM} \cdot 100}$

the inverse of this is $\frac{\text{PopM} \cdot 100}{\text{RS}}$

thus the ratio between area of slab & area per plant is.

$$= \text{PopM} \left(\frac{100}{\text{RS}} \right) \cdot \frac{\text{RS}}{10,000}$$

multiply by FORMULA
depending on values the plant is