

EFFECT OF ADDING HIGHER CONCENTRATIONS OF
NUTRIENT ELEMENTS ON UPTAKE OF OTHER NUTRIENT ELEMENTS

Both macro and micro elements used in fertilization of flower crops react upon each other in the soil solution. Some of these elements increase uptake of other elements, while uptake is decreased by others. These changes in nutrient uptake by plants is shown in the following table.

| Element Uptake by Plant | <u>Fertilizer Element Added</u> | | | | | | | | | |
|----------------------------|---------------------------------|---|---|----|----|---|----|----|----|----|
| | N | P | K | Ca | Mg | B | Cu | Fe | Mn | Zn |
| Nitrogen | I* | I | | D | | | | | | D |
| Phosphorus | I | I | D | D | D | | | | I | D |
| Potassium | D** | D | I | D | D | I | | | | I |
| Calcium | D | I | D | I | D | | | | D | D |
| Magnesium | I | I | D | D | I | | | | D | D |
| Boron | D | D | D | D | | I | I | | | |
| Copper | D | D | D | | | | I | | | D |
| Iron | I | D | D | | | | D | | | |
| Manganese | | I | D | | | | I | | I | |
| Zinc | D | | D | | | | I | | I | I |

* - Increase Uptake ** - Decrease Uptake

N = Nitrogen, P = Phosphorus, K = Potassium, Ca = Calcium, Mg = Magnesium,

B = Boron, Cu = Copper, Fe = Iron, Mn = Manganese, Zn = Zinc

Explanations:

Add fertilizer, example nitrogen, and the uptake of nitrogen and phosphorus increased. The extra nitrogen decreases uptake of potash and calcium, increases uptake of magnesium and iron, and on down the column decreases uptake of boron, copper and zinc.