

# FACT SHEET

## IRON DEFICIENCY IN DAHLIA PLANTS

Many dahlia growers plant in the same ground year after year, this will deplete trace elements in the soil if you do not replace them. The question is what is missing (or at low levels). Iron chlorosis is a yellowing of the plants growing leaves caused by iron deficiency. Yellow leaves indicate lack of chlorophyll (the green pigment) in the leaves. On this fact sheet we are looking at young dahlia plants with yellow growing centre ?



The plant at the left (one of many about three weeks after planting) is showing strong growth but the centre growing tip and top leaves are very yellow. The lower leaves are pale green, two growing well with two stunted. When these plants get to 800 mm high they grow out of the yellow centre and continue growing fully green?

It is believed, as the plants root structure expands, it is able to reach enough Iron in the soil, and that is why the yellowing centre stops as the plant ages

After much research, not enough Iron in the soil is thought to be the problem. To test that, Iron is added to the soil during the next winter (at half the strength recommended) The next photo shows the change.



[One year later] This plant is growing strongly,(about three weeks old) with far less or very little yellowing of the growing tip and top leaves. The lower leaves are a rich dark green and all fully developed (although partly eaten which is another problem).

Most of the plants showed very little yellowing (80 plants in this Dahlia patch)

Next winter another application of Iron (again at half the recommended rate)

The next photo shows the results.



The plants are growing strong, showing NO yellowing of the centre. The top leaves are the same green as the lower ones, all leaves are fully developed.

30 grams per square meter of Iron Sulphate was applied each year for two years, a total of 60g/m<sup>2</sup> to give the result above.

Unlike some fertilizers Iron is not mobile in the soil. It does not leach out of the soil so care must be taken to not add too much. We believe that Iron will not need to be added to the soil for another five years (Time will tell).

#### Foot Note

A keen eye and plenty of notes taken (photos as well) is the way to overcome problems in your garden.

We wish to thank the many people that we spoke to about this problem and the agronomist's that set us on the correct path to fix Iron Deficiency.

Happy Dahlia Growing

Visit our web site for other information about growing and showing Dahlias.