



Bt cotton in India has changed the cotton scenario from import to export. Mainly due to introduction of high yielding & nutrient responsive hybrids which have resulted in higher yields. Cotton being a deep-rooted crop it removes large quantity of nutrients from soil profile. Cotton biomass accumulation is maximum during active growth stage. Therefore, application of fertilizers should be done well before the active grand growth period wherein crop demands maximum nutrients. Because at this stage simultaneous production of both shoot/branches & square formation takes place. Cotton growers follow imbalanced & inappropriate application of NPK & micronutrients as a result of which boll dropping, leaf reddening due to nutrient deficiency are few of the major challenges which farmers are facing.

Therefore, Mahadhan has brought the Smartek Technology to overcome these challenges to the greater extent.

Following Q&As will provide the required details to help the cotton growers to take care of this aspects:

### What are the critical growth stages for nutrient requirement in Cotton?

- 1) Active grand growth phase (40 -100 days after sowing)
- 2) Boll formation & boll development (100 -130 days after sowing)

### Which are unfavourable conditions leads to boll shedding in cotton & why?

The following conditions decreases available supply of photosynthates which leads to boll shedding.

- 1) Low light penetration (due to cloudy weather & or excessive leaf area due to closer spacing)
- 2) Water deficit, High temperature and
- 3) Deficiency of nutrients (N, K, Mg & Zn)

### How to control leaf reddening in cotton crop?

Reddening of leaves shows low chlorophyll content & high anthocyanin pigment due to multinutrient deficiencies. Leaf reddening can be addressed through correcting nutrient deficiencies by supplying the following nutrients in optimum dose with the RDF 120:60:60:30 NPKS kg/hectare for rainfed condition.

- 1) Nitrogen: 30 % at basal, 35% at 30-40 DAS & 35% at 50-60 DAS
- 2) Phosphorous & Potash: at basal
- 3) Bensulf Super-Fast @ 30 Kg / hectare
- 4) MgSO4 @ 25Kg + ZnSO4 @ 10 Kg + FeSO4 @ 15 Kg & DTB - Boron @ 5 kg per hectare.

### What is Mahadhan solution for balanced nutrition recommendation in cotton crop?

Mahadhan solution for balanced nutrition recommendation in cotton crop is -

Mahadhan Product	At sowing (kg/ac)	30-40 DAS (kg/ac)	50-60 DAS (kg/ac)
Smartek N-10	100		
Bensulf Super-Fast	10		
Urea	25	35	45
MgSO4	10		
ZnSO4	4		
FeSO4	6		
DTB - Boron	2		

### What are the application benefits of Mahadhan Smartek N10 & Bensulf Superfast in Cotton production?

- 1) Application of Smartek N10 increases number of sympodial branches & number of bolls per plant as a result it increases yield by minimum 10%.
- 2) Application of Bensulf Superfast contributes to increase boll weight, oil content & seed cotton yield.