

AUXIN TYPE GROWTH REGULATORS

Role of Auxin :

- Induces cell division and cell growth
- Improves synthesis and translocation of photosynthates
- Induces root initiation
- Breaks dormancy of seeds and buds
- Induces flowering and fruit growth

COTTON :

- Foliar spray of 40 ppm NAA (20g / 500 lit. of water / ha) at 90, 105 and 120 DAS reduces flowers, buds and squares dropping and increases yield.

PULSES :

- Foliar spraying 40 ppm NAA increases flower production, reduce flower drop and increases seed yield.

CHILLIES :

- Foliar spray of 100 ppm NAA at 25 DAT - to reduce the flower drop and increases fruit set and yield.

POTATO :

- Foliar spray of NAA 100 ppm at 25 DAT - to increase tuber yield.

HORTICULTURAL CROPS:

- For induction of rooting in cuttings. Dip cuttings in 1000 ppm IBA and then plant.

GIBBERELIC ACID

Plant Growth Regulator

Roles of Gibberellic acid

- Prevents genetic and physiological dwarfism
- Breaks seed and bud dormancy
- Induces flowering
- Induces Parthenocarpy in fruits and vegetables
- Induces seed germination.

USES

Rice :

- Foliar spray of GA₃ at 100 ppm during panicle initiation stage enhances the panicle exertion and increases seed weight and yield in hybrid rice.

Sunflower :

- Foliar spray of GA₃ at 200 ppm at 45 DAS increases the seed number, seed weight and yield.

Grapes :

- Foliar spray 25 - 50 ppm of GA₃ in grapes just before flowering and during fruiting enhances the fruit size, sugar content and yield.

Chrysanthemum :

- Spraying GA₃ at 50 - 150 ppm increases the number of flowers, yield and enhances the shelf life.

ETHREL - PLANT GROWTH REGULATOR

Physiological roles:

- Induces auxin production
- Induces flowering
- Activates enzymes in respiration
- Induces resistance to frost and diseases
- Accelerates seed germination and latex flow
- Induces branching

Sl. No:	Crop	Dose	Time of Application	Uses
1.	Grapes	80 ppm	Tenth day after flowering	Seedless fruits Increases fruit weight, size and colour
2.	Cucumber Snake gourd Bitter gourd Ribbed gourd Pumpkin	300 ppm	At peak vegetative stage	Increases male and female flowers
3.	Pineapple	40 ppm	At peak vegetative stage	Induces flowering
4.	Banana	1000 ppm	At the time of fruit maturity	Induces ripening
5.	Mango	1000 ppm	At the time of fruit maturity	Induces ripening
6.	Jatropha	100 ppm (2 times)	At flower initiation stage & pod filling stage	Induces flowering, pod setting and seed yield

BRASSINOLIDES (BR)

PLANT GROWTH REGULATORS

Roles of BR

- **Increases growth and uptake of nutrients.**
- **Imparts resistance to drought, salinity and heat.**
- **Increases flowering, fruit set and yield.**

USES

Rice

- **Foliar spray of 0.3 ppm BR at panicle initiation and flowering stages increase grain yield.**

Groundnut

- **Foliar spray of 0.5 ppm BR on 40 DAS increases pod yield.**

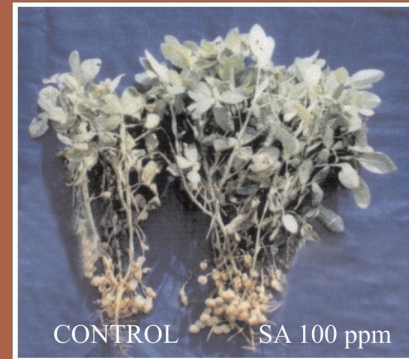
Cotton

- **Foliar spray of 0.5 ppm BR at flowering stage increases kapas yield.**

SALICYLIC ACID FOR INCREASING YIELD IN PULSES AND OILSEEDS

Physiological Role of Salicylic Acid :

- ◆ Acts as a growth hormone
- ◆ Maintains water balance
- ◆ Acts as a chelate for Phosphorus uptake
- ◆ Improves flowering and pod yield
- ◆ Induces resistance to pest and disease



Technology :

**Foliar spray of 100 ppm salicylic acid
(50g/500 lit water/ha) for Greengram, Blackgram,
Sesamum, Castor and Groundnut.**

Method :

Foliar spray of salicylic acid 100 ppm (100mg / lit)

Time of spray :

1. At flowering stage
2. At 15 days after first spray