

COTTON CULTIVATION

Cotton is an important kharif crop of the Punjab State. It was grown on 511 thousand hectares in 2009-2010. The total production was 2006 thousand bales. The average lint yield for the state as a whole was 667 kg per hectare.

Hints for high yield of cotton

1. Grow only recommended varieties/hybrids resistant/tolerant to cotton leaf curl viral disease.
2. Eradicate alternate hosts of cotton leaf curl virus/volunteer cotton plants before sowing, to avoid the multiplication and spread of diseases.
3. Must soak delinted seed in water for 2-4 hours.
4. Heavy pre-sowing irrigation is must to obtain good germination and early Establishment of plants.
5. Complete the sowing from April to 15 May. It will help to escape the attack of American bollworm to great extent.
6. Avoid sowing American cotton in/or near the orchards.
7. Avoid growing *bhindi*, *moong*, *arhar*, *castor*, *dhaincha* in and around the cotton fields to avoid simultaneous build up and spread of pests and diseases to cotton.
8. Cultural control is indispensable for management of mealy bug.
9. Regular monitoring followed by campaign is effective strategy for the management of mealy bug.
10. The incidence of insect pests increases with excessive use of nitrogenous fertilizers, hence use only recommended dose.
11. Spray to control jassid only when it reaches economic threshold level of second injury grade i.e. marginal cupping of leaves.
12. Give 4 sprays of 2% potassium nitrate (13:0:45) starting at flower initiation, at weekly Interval
13. Avoid using synthetic pyrethroids after September 15 to minimize resurgence of whitefly. Prefer to use triazophos and ethion to control whitefly.
14. Avoid tank mixing and use of readymade insecticidal mixtures.
15. Control American bollworm at the initial stages. Use chlorpyrifos/spinosad/acephate/indoxacarb for the control of larvae when their length is more than 1.25 cm.
16. Use chlorpyrifos/thiodicarb/acephate/quinalphos/endosulfan against tobacco caterpillar taking into consideration the pest complex.
17. Follow Insecticide Resistance Management (IRM) strategy for effective management of insect pests.
18. Use fixed type hollowcone nozzle which discharges 600 ml of spray material per minute for efficient pest control.

Important hints for Bt Cotton

1. Grow only recommended hybrids (MRC 7017 BG II, MRC 7031 BG II, RCH 308, RCH 314, RCH 317, MRC 6301, MRC 6304) of Bt cotton.
2. Avoid sowing Bt cotton in light sandy soils.
3. Give first irrigation 4-6 weeks after sowing depending on soil type.
4. Control sucking pests and tobacco caterpillar as and when situation arises. Last irrigation in September is must.
5. Grow non-Bt cotton as refuge on the periphery of Bt cotton to prevent development of resistance against Bt in bollworms. If 20 per cent area is under refuge then it should be protected against bollworms by using recommended insecticides but if refuge occupies only 5 per cent area then it should not be protected.