1938 Evaluation of refuge crops for Bt cotton

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Rationale: In India, many crops those host bollworms are grown. Fitness of such crops as refuge for Bt cotton need to be assessed. Objective: To evaluate pigeonpea and okra as refuge crops Methods: Large scale field studies with pigeonpea and okra in different refuge proportions are conducted. Results: Larval incidence on Bt cotton was negligible and uniform in all the treatments. On refugia crops, larval incidence was higher with 10% pigeonpea and okra (unsprayed) refugia. Damage to the fruiting bodies due to bollworms was uniform among different treatments. Whereas on refugia crops, damage to the fruits in okra was significantly highest in unsprayed 10% okra refugia (18.60%) followed by 10% unsprayed pigeonpea refugia (21.09%). Bt cotton + 20% okra (sprayed) refugia treatment registered significantly higher seed cotton yield (27.90 q /ha), which was statistically at par with Bt cotton + 10% okra (sprayed) refugia (27.80 q /ha) and Bt cotton + 20% pigeonpea (sprayed) refugia (27.05 q /ha) treatments. Conclusion: Pigeonpea and okra act as good refugia.Okra has more advantage.