Cotton: Crying out for change

Why in news?

Cotton farmers in Northern India suffered heavy losses in the last kharif season.

What are the reasons for less cotton productivity?

- The cotton productivity estimate was reported to be at its lowest in the North zone comprising of Punjab, Haryana and Rajasthan.
- North zone cotton, which recorded the highest cotton yield in 2019-20 is now down by over 30%.
- **Reasons –** The losses are mounting due to the rising cost of cultivation, climate induced change in pest dynamics and rampant sale of unauthorised seeds and unchecked pesticides sprays.
- **Health & Environment –** The boom and tractor mounted sprayers are back with unimaginable consequences on human health and environment.
- **Climate Change –** Climate change induced weather aberration, widespread infestation of boll devouring pink bollworm, new tobacco streak virus disease and boll rot have recently threatened cotton farmers.
- **Crop diseases –** The white fly transmitted severe cotton leaf curl virus and sudden outbreak of para wilt have worsened the situation for North zone farmers.
- **Lack of infrastructure –** The cotton sector seems to be dogged by some serious structural deficiencies.

What is the impact of low cotton productivity?

- **Imbalance in demand-supply –** Cotton productivity, has continuously been decelerating, causing imbalance in demand-supply of cotton and uncertainty in the cotton textile industry.
- **Increase in imports –** This dip in cotton production has forced the textile industry to rely on imports, which increased to 35.3 lakh bales worth ₹8,339.26 crore in 2018-19.
- The relaxation in import duty structure would hit the balance of trade in cotton, which remained favourable over the last two decades.
- **Decrease in exports –** On the other hand, cotton exports, which peaked in 2014-15, have since declined.

What are the strategies used to overcome the challenges?

- **HDPS –** The cropping system of cotton must gradually undergo a systematic change to high density planting system (HDPS).

The HDPS is a new cropping system of accommodating more plants per unit area

supported by technological inputs for weed management, defoliation and mechanical picking.

- **Dibbling –** Our farmers practice dibbling based sowing of bushy-type, long duration hybrid cotton seeds at a large spacing accommodating fewer plants per acre.
- The farmers harvest seed cotton 3-4 times in a season spanning 180 to 280 days in different cotton growing zones.
- **Hybrid Cotton –** New erect type hybrid cotton genotypes have been introduced to optimise plant population.
- However, but this forms just one-fourth of what is being practiced under HDPS in countries with high cotton yield.

What is the way forward?

- **Policies –** The government-led policy paradigm on cotton must give way to progressive evidence-based policies on pricing of seeds and safeguarding intellectual property.
- **Intellectual Property Rights –** Enforcement of IPR on new varieties suitable for HDPS while ensuring farmers' rights must be strengthened to attract investment in R&D and breeding of high-density suitable genotypes.
- **Transfer of Seeds –** Exchange of pre-breeding germplasm under material transfer agreement (MTA) and access and benefit sharing (ABS) mechanism for cross border material transfer must be prioritised.
- **Price Control –** The price control of cotton seeds under the Cotton Seed Price (Control) Order, 2015 has discouraged breeding activities and stalled introduction of much needed technologies for weed management.
- This has also fuelled the growth of illegal market for herbicide tolerant (HT) cotton.

Reference

1. The Hindu Business Line | Cotton: Crying out for change