Mixed Green Manure Cropping

***Prelims**: Economic and Social Development – Sustainable Development| Current events of national and international importance*

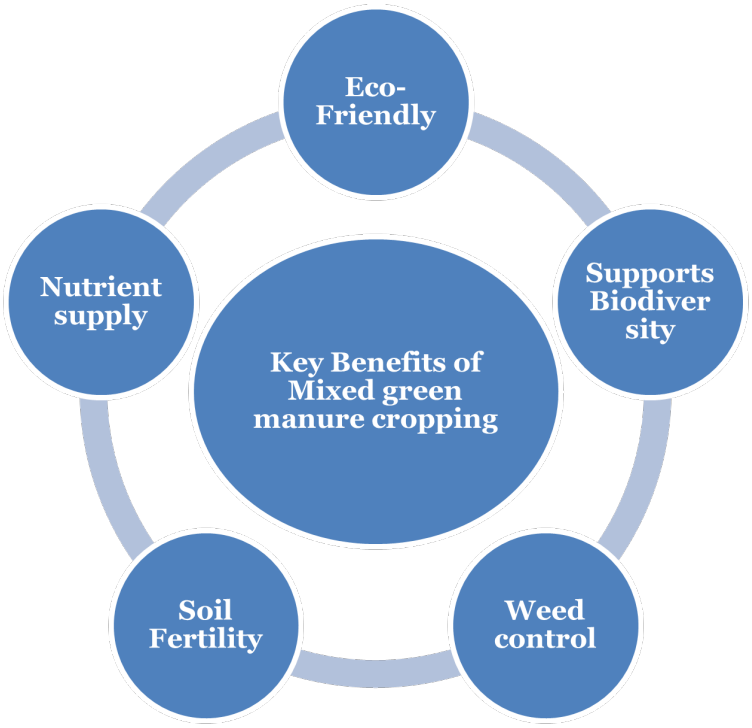
Why in news?

Recently The National Seeds Corporation (NSC) has introduced two mixed green manure kits to promote mixed green manure cropping.

> *National Seeds Corporation (NSC) is established in 1963, is engaged in the production and distribution of certified seeds to enhance agricultural productivity and ensure food security.*

- **Green Manure –** It refers to crops specifically grown to be *incorporated back into the soil* rather than harvested.
- These crops *decompose in the field*, enriching the soil with organic matter and essential nutrients.
- **Mixed green manure cropping** – It involves cultivation of multiple green manure crop species with complementary characteristics together and incorporated back into soil to enrich the soil.
- It is a dynamic, multifaceted approach that significantly ***improves soil fertility and long-term farm sustainability.***
- It aligns with *National Mission on Sustainable Agriculture (NMSA).*
- The most important green manure crops are,
    - Sunnhemp
    - Dhaincha
    - Pillipesara
    - Clusterbeans
    - Sesbania rostrata

Key Benefits



- **Nutrient supply** – It *enhances soil nitrogen* through ***legumes*** and improves *organic matter and micronutrient* availability.
- **Soil fertility –** Deep roots species such as *Dhaincha and Sunhamp* ***loosen compact layers***.
- Fibrous roots species such as *cowpea and sorghum* improve ***aeration and moisture retention***.
- **Weed control -** Allelopathic crops inhibit weed seed germination and dense canopy suppresses weed growth naturally.

Allelopathy is a phenomenon where one plant releases chemicals that affect the growth of other plants nearby. These chemicals, called allelochemicals, can inhibit germination, suppress growth.

- **Supports Biodiversity –** It encourages beneficial insects and pollinators.
- It also enhances ***microbial diversity and soil food web stability.***
- **Eco-Friendly –** It reduces dependency on chemical fertilizers and herbicides and supports agroecological sustainability.

Reference

DD News| Mixed green manure cropping

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