

ICAR-Indian Institute of Farming Systems Research
Project Coordination Unit

Guidelines for on station model farms

1. Model farms should be developed in accordance with the local agro-ecological cropping systems, adhering to the principles outlined in the Technical Manual on Natural Farming.
2. Minimum demonstration area should be one-acre size in plains and half acre in hilly areas.
3. Preference should be given to having dairy units (preferably of local breed) near the Natural Farming model farm.
4. Pre-monsoon dry sowing in rainfed areas and multivariate cropping in irrigated areas during summer / fallow period should be followed.
5. Poly/multi-cropping as per suitability of the location in all the seasons with crop combinations of different families, rooting pattern, canopy pattern etc should be made in the model farm. Leguminous crops should be given preference besides trap crops.
6. The model farms shall serve as a replicable plot for farmers with proven and adaptable approach to NF practices.
7. Plant cafeteria comprising of chili, garlic, ginger, neem, tobacco, pongamia (karanj), custard apple, castor, datura, bael, marigold, tulsi, mango, Calotrophis (Aak), turmeric, sesame, moong, urad, cowpea, moth, gram and any other location specific plants used for Agniastra, Brahmastra, Neemastra, Dashparni ark, sonthastra, Saptdhanyankur ark and other NF bio-inputs preparation should be developed in model farm in 200 m² area.
8. Natural farming input (Jeevamrit, Ghanjeevamrit, Beejamrit, Agniastra, Brahmastra, Neemastra, Dashparni ark, sonthastra, Saptdhanuankur ark and any other location specific practices etc) preparation and processing unit should be established within the model farm in minimum area of 200 m² area.
9. Boundary plantations with perennial plants preferably fruits and timbers are preferred.
10. Model farms having wide spaced crops and other suitable crops can be raised under micro irrigation systems with application of Jeevamrit through the same.

11. Soil samples should be collected at a depth of 30 cm after cropping period in every season and parameters such as soil organic carbon, microbial population, water holding capacity, bulk density, available nitrogen, phosphorus and potassium should be analysed. Baseline data of these parameters should be collected at the start of the season.
12. Day to day activities of NF model farms should be recorded in NF-Farm Register by Farmer Master Trainers (FMTs).

Guidelines for model farms at farmers fields

1. The model farms shall serve as a replicable plot for farmers with proven and adaptable approach to NF practices.
2. Model farms should be developed in accordance with the local agro-ecological cropping systems, adhering to the principles outlined in the Technical Manual on Natural Farming.
3. Minimum demonstration area should be one-acre size in plains and half acre in hilly areas.
4. Soil samples should be collected at a depth of 30 cm at the start of the season and after cropping period in every season and parameters such as soil organic carbon, microbial population, water holding capacity, bulk density, available nitrogen, phosphorus and potassium should be analysed.
5. Pre-monsoon dry sowing/ multivariate cover cropping during summer or fallow period should be followed.
6. Poly/multi-cropping should be implemented as per the farmer's choice and suitability to the local ecology in all seasons. Crop combinations from different families, with varying rooting and canopy patterns, should be considered. Leguminous crops should be prioritized, along with trap crops and border crops.
7. Boundary plantations with perennial plants preferably fruits and timbers are preferred.
8. Must have access to the plants/ raw materials like chili, garlic, ginger, neem, tobacco, pongamia (karanj), custard apple, castor, datura, bael, marigold, tulsi, mango, Calotrpis (Aak), turmeric, sesame, moong, urad, cowpea, moth, gram and any other location specific plants used for preparation of Agniastra,

Brahmastra, Neemastra, Dashparni ark, sonthastra, Saptdhanyankur ark and other NF bio-inputs preparation.

9. Day to day activities of NF model farms should be recorded in NF-Farm diary by Farmers and Farmer Master Trainers (FMTs).

Indicators for assessment

1. Soil health assessment
2. Production from each season on a crop equivalent basis.
3. Resource use assessment (land, labour, capital, water)
4. Above and below ground diversity assessment (flora, fauna, microbes etc)
5. Economics (based on Paid-out costs, environmental costs)
6. Community engagement
7. Employment Generation

Check list

#	Protocol	Yes / No
1.	Principles as per the Technical Manual on Natural Farming followed (As per Annexure)	
2.	Demonstration area of one acre for plains and half acre for hills followed	
3.	Pre-monsoon dry sowing in rainfed and multivariate cropping in irrigated as applicable is followed	
4.	Poly/ Multi cropping approach practiced	
5.	Plant cafeteria developed	
6.	Natural farming input preparation and processing unit developed	
7.	Recommended/ suitable protocol for preparing inputs followed	
8.	Recommended/ suitable quantity of natural farming inputs applied	
9.	Mulching followed	
10.	Boundary plantation introduced	
11.	Day to day activities register maintained	
12.	Training and demonstration activities are conducted	
13.	Soil sample collected at beginning and after every cropping season	
14.	Any other, please specify	