FORM – A : RESULT OF ONGOING EXPERIMENT

01.	*Experiment number and title (As per CJA)	:	18.4.3.6 - Effect of boundary plantation of different tree species on associate crops
02.	Budget Head		352/12130
03.	Collaborative department, if any		NA
04.	Location and Agro-climatic sub region	:	Various Farms of NAU, Navsari – 396450
05.	Background Information	:	India has set a high target for increasing its tree cover from the present 24 % to 33 % of its total area, primarily by promoting agroforestry in croplands. Some 174,500 square kilometres (67,375 square miles) of land in India is cultivated through agroforestry, according to the latest remote sensing data from the Central Agroforestry Research Institute. The benefits of agroforestry are widely acknowledged, including by the United Nations Food and Agriculture Organisation. In its manual "Agroforestry in rice-production landscapes in Southeast Asia" it states: "Integrating trees into rice-production landscapes helps - in reduce temperatures and improve infiltration of water into the soil, store more carbon and diversify farm production, which lowers both climate and market risks. This adds up to greater adaptability and resilience not only for individual farmers and communities but also their environments." In Gujarat, forest cover is relatively low but tree cover-Trees Out-side Forest (TOF) is the second highest amongst the major Indian states. The fact that further allocation of land towards forestry purpose is almost impossible, leaves only one alternative for increasing the tree cover and augmenting the supply of forest produce, and that of organizing and motivating people, and with their help, planting tree in the low productivity wastelands and farmlands. Accordingly, the government of Gujarat adopted a new approach more than four decades ago, and in 1969-70, Social Forestry was born as a People's Programme for planting trees outside the forest lands. Social forestry divisions, first in the country, were established in the State. With this initiative, the State became the pioneer in social forestry in the world.
06.	Objectives	:	1. To study the effect of orientation of boundary plantation on growth and yield of associate crops
07.	Investigators	:	**PI:** 1. Dr. M. R. Parmar, Assistant Professor (AF) **Co-PI:** 1. Dr. M. B. Tandel, Assistant Professor (Forestry) 2. Dr. S. M. Patel, Assistant Professor (AF) 3. Dr. M. K. Desai, Assistant Professor (AF) **Associates:** 1. Dr. Jagdish V. Patel (ARS, Farm No. - 3)
08.	Year of commencement	:	2022-23
09.	Season	:	NA
10.	Crop and variety	:	NA

11.	Experimental details	:	
	(a)	Treatment combinations	:	8
		Factor (A): Orientation of boundary plantation:		
		T_1 – East -West Orientation		
		T_2 - North-South Orientation		
		Factor (B): Distance from the boundary plantation		
		D_1 - 0-5 m		
		D_2 - 5-10 m		
		D_3 - 10-15 m		
		D_4 - 15-20 m		
	(b)	Design	:	Randomized Block Design with Factorial Concept (FRBD)
	(c)	Replications	:	3
	(d)	Plot size	:	Gross - ____ m x ____ m
				Net - ____ m x ____ m
12.	Cultural details		
	(a) Previous crops and fertilizers	:	NA
	(b) Sowing date	:	NA
	(c) Seed rate		NA
	(d) Spacing		NA
	(e) manures and fertilizers		NA
	(f) No. of irrigation with date		NA
	(g) Cultural operations with date		NA
	(h) Plant protection measures		NA
	(i) Harvesting date		NA
13.	Soil analysis		NA
14.	Input analysis		NA
15.	Results (Table/s with statistical analysis and Interpretation)	:	Plots which were having East – West and North – South orientation were identified and data on growth and yield parameters of associated crops growing by preparing 1 x 1 m quadrants and tree parameters were recorded at various distance from the boundary plantation. Analysis of various growth and yield parameters of associate crops is under progress. Analysis of soil samples is also under process.
16.	Remarks (for abnormal experimental results only)	:	-
17.	Reasons for abnormal conditions affecting experimental results and low yield if any be given in brief. e.g. uneven plant stand, pest and disease incidence, weather conditions, etc.	:	NA
18.	Any other information	:	NA