FORM – A : RESULT OF ONGOING EXPERIMENT

01.	*Experiment number and title (As per CJA)	:	19.4.3.42 and Evaluation of different bamboo species for charcoal production
02.	Budget Head		352/12029
03.	Collaborative department, if any		NA
04.	Location and Agro-climatic sub region	:	Bamboo Resource Centre, College of forestry, NAU, Navsari – 396450 and AES-III (Heavy Raifall Zone), South Gujarat
05.	Background Information	:	Perennial grasses with large woody stem or culm belonging to subfamily Bambusoidae under family Poaceae is taxonomically known as bamboo mainly growing in temperate and tropical parts of the world. Bamboos have multiple utilizations (including building materials, medicinal ingredients, nutritious vegetables and animal feed stocks) depending on bamboo species, bamboo types, plant parts and growing regions of a country. Apart from these bamboo can be leading plant material in bio-energy sectors. Bamboo charcoal prepared from the biomass of the different bamboo species. Charcoal is a solid fuel used for heating and cooking that is created through the process of carbonisation, which is a process where complex carbon substances such as wood or other biomass are broken down through a slow heating process into carbon and other chemical compounds. Charcoal prepared from bamboo biomass having higher adsorbtivity than wood which will applicable in different purification, absorption, preservation, processing and healthcare products. Nearly about 70000 tons of bamboo charcoal used by America and more than 50000 tons used by Japan every year (Qisheng et al., 2003). Looking to the wide range of uses, applicability and emphasis on bio-energy products present experiment taken entitled "Evaluation of different bamboo species for charcoal production" with following objectives.
06.	Objectives		 To evaluate different bamboo species for charcoal production To analyze the quality of charcoal from different bamboo species.
07.	Investigators	:	PI: Dr. Jayesh Pathak, Assistant Professor (Agroforestry)
			Co-PIs:
			1. Dr. S. K. Sinha, Assistant Professor (Wood Science and Technology)
			2. Dr. D. P. Patel, Assistant Professor (NRM)
			Associates:
			Dr. A. A. Mehta, Assistant Professor (FPU)
08.	Year of commencement	:	2022-23
09.	Season	:	NA

10.	Crop and variety	:	Different Bam	boo Species		
			Treatments	Bamboo Species	Treatments	Bamboo Species
			T_1	Bambusa bambos	T 9	Dendrocalamus hamiltonii
			T ₂	Bambusa vulgaris var. vulgaris	T_{10}	Dendrocalamus stocksii
			T ₃	Bambusa vulgaris var. vitata	T ₁₁	Dendrocalamus sikkimensis
			T ₄	Bambusa balcooa	T ₁₂	Dendrocalamus brandisii
			T ₅	Bambusa nutans	T ₁₃	Dendrocalamus longispathus
			T ₆	Bambusa tulda	T ₁₄	Gigantochloa atroviolacea
			T ₇	Bambusa polymorpha	T ₁₅	Guadua angustifolia
			T ₈	Dendrocalamus strictus	T ₁₆	Thyrsostachys oliveri
11.	Experimental details	:				
	(a) Treatments	:	16			
	(b) Design	:	Randomized B	lock Design (RBD)		
	(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)	:	For understand vinegar we hav Surat. Procure	ling of machineries r ve visited Departmen ment will be initiated	equired for chant of Renewabl	arcoal, biochar and e Energy, SVNIT,
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