

# Model Curriculum

## Bamboo Grower

**SECTOR: AGRICULTURE & ALLIED**

**SUB-SECTOR: FORESTRY ENVIRONMENT RENEWABLE  
ENERGY MANAGEMENT**

**OCCUPATION: AGRO FORESTRY MANAGEMENT**

**REF ID: AGR/Q6101, V1.0**

**NSQF LEVEL: 4**



## Certificate

### **CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS**

is hereby issued by the

**AGRICULTURE SKILL COUNCIL OF INDIA**

for the

**MODEL CURRICULUM**

Complying to National Occupational Standards of  
Job Role/Qualification Pack: 'Bamboo Grower' OP No. 'AGR/O6101 NSQF Level 4'

Date of Issuance: March 15<sup>th</sup>, 2015

Valid up to: March 31<sup>st</sup>, 2016

\* Valid up to the next review date of the Qualification Pack



Authorised Signatory  
(Agriculture Skill Council of India)

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# Bamboo Grower

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Bamboo Grower”, in the “Agriculture & Allied” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Bamboo Grower</b>		
<b>Qualification Pack Name &amp; Reference ID. ID</b>	AGR/Q6101, v1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	
<b>Pre-requisites to Training</b>	No entry level barrier		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• <b>Perform pre-cultivation practices:</b> Nursery preparation, Nursery management, preparation of planting material, preparation of land for cultivation of crop etc</li> <li>• <b>Grow and manage crop:</b> Planting, soil testing, application of fertilizer &amp; nutrients, Weed management, Insect Pest Management, Irrigation management, crop management etc</li> <li>• <b>Handle Harvest and Post Harvest Practices:</b> Time of Harvesting, Method of Harvesting, post harvest practices – drying, packing and transportation.</li> <li>• <b>Market the produce:</b> Market identification, time of marketing etc</li> <li>• <b>Become well versed with Environment Health &amp; Safety:</b> Well versed with health and safety measures in terms of personal safety and others as well.</li> </ul>		

This course encompasses 11 out of 11 National Occupational Standards (NOS) of “Bamboo Grower” Qualification Pack issued by “Agriculture Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Introduction</b>  <b>Theory Duration</b> (hh:mm) 5:00  <b>Practical Duration</b> (hh:mm) 0:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Understand the General Discipline in the class room (Do’s &amp; Don’ts)</li> <li>Understand the Role of a Bamboo Grower</li> <li>Understand and study the Scopes and Opportunities of Forest Crops cultivation</li> </ul>	White Board, Marker, Laptop, projector
2	<b>Prepare and manage Nursery in Bamboo Growing</b>  <b>Theory Duration</b> (hh:mm) 05:00  <b>Practical Duration</b> (hh:mm) 10:00  <b>Corresponding NOS Code</b> AGR/N6101	<ul style="list-style-type: none"> <li>Identify the tools/equipments required for the nursery preparation and management</li> <li>Size and layout of the nursery</li> <li>Irrigation and drainage requirements for the Nursery</li> <li>Sowing method, Sowing depth and spacing</li> <li>Irrigation Techniques</li> <li>Weed control</li> <li>Fertilizer application</li> <li>Pruning Practices – Time of Pruning, Method of pruning</li> </ul>	White Board, Marker, Laptop, projector
3	<b>Prepare Planting material for Bamboo Growing</b>  <b>Theory Duration</b> (hh:mm) 05:00  <b>Practical Duration</b> (hh:mm) 10:00  <b>Corresponding NOS Code</b> AGR/ N6102	<ul style="list-style-type: none"> <li>Identify appropriate planting material – High Yield, Pest Resistant, Disease tolerant varieties etc</li> <li>Procure planting material               <ul style="list-style-type: none"> <li>Identification of Vendor</li> <li>Quality of Plating material, free from pest and disease, high survival rate etc</li> </ul> </li> <li>Treat the planting material               <ul style="list-style-type: none"> <li>Usage of Pesticides, fungicides and other chemicals</li> <li>Follow the recommended dosage of chemicals for treatment</li> </ul> </li> <li>Ensure health and safety precautions are adhered               <ul style="list-style-type: none"> <li>Safety precautions</li> <li>Equipments etc</li> </ul> </li> </ul>	White Board, Marker, Laptop, projector
4	<b>Prepare land and plant the planting material</b>  <b>Theory Duration</b> (hh:mm)	<ul style="list-style-type: none"> <li>Identify, Select and use the tools and equipments for the land preparation</li> <li>Prepare the land layout               <ul style="list-style-type: none"> <li>Layout of the field</li> <li>Ploughing</li> </ul> </li> </ul>	White Board, Marker, Laptop, projector, Record Keeping Book, receipts, voucher

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	05:00 <b>Practical Duration</b> (hh:mm) 10:00 <b>Corresponding NOS Code</b> AGR/N6103	<ul style="list-style-type: none"> <li>- Preparation of Bunds and Trenches</li> <li>- Preparation of Pits, Pit Sizes</li> <li>• Prepare soil for transplanting               <ul style="list-style-type: none"> <li>- Clean the field,</li> <li>- Weed Management</li> </ul> </li> <li>• Transplant the planting material               <ul style="list-style-type: none"> <li>- Hardening</li> <li>- Trimming</li> <li>- Transplantation</li> <li>- Planting</li> <li>- Space of Planting</li> <li>- Time of Planting</li> <li>- Irrigation</li> </ul> </li> <li>• Manage clump               <ul style="list-style-type: none"> <li>- Remove unwanted clumps</li> <li>- Pruning</li> </ul> </li> </ul>	
5	<b>Manage soil nutrient in bamboo growing</b> <b>Theory Duration</b> (hh:mm) 10:00 <b>Practical Duration</b> (hh:mm) 15:00 <b>Corresponding NOS Code</b> AGR/N6104	<ul style="list-style-type: none"> <li>• Maintain macro and micro nutrients in the soil               <ul style="list-style-type: none"> <li>- Soil Testing</li> <li>- Analyse the Soil Nutrient</li> <li>- Interpretation of Report</li> </ul> </li> <li>• Application of manures and fertilizers               <ul style="list-style-type: none"> <li>- Identify the dosage of Fertilizers</li> <li>- Application of FYM and Fertilizers</li> <li>- Distance, Time and Frequency of Application</li> </ul> </li> <li>• Keep record of Fertilizer application</li> </ul>	Marker, Laptop, projector, Soil testing kit, plastic bags, labels
6	<b>Weed management in Bamboo growing</b> <b>Theory Duration</b> (hh:mm) 07:00 <b>Practical Duration</b> (hh:mm) 10:00 <b>Corresponding NOS Code</b> AGR/N6105	<ul style="list-style-type: none"> <li>• Understand the types of weed</li> <li>• Perform the Weeding process –Manual weeding/ mechanized/ chemical spray</li> <li>• Frequency of weeding</li> <li>• Mulching practice</li> <li>• Importance of Mulching</li> <li>• Disposal of Removed weeds</li> </ul>	Marker, Laptop, projector, mulching materials, Chemicals, pruning tools /equipments
7	<b>Irrigation management in Bamboo Growing</b> <b>Theory Duration</b> (hh:mm) 8:00 <b>Practical Duration</b>	<ul style="list-style-type: none"> <li>• Understand the Water requirement for the cultivation of Bamboo crop</li> <li>• Plan for the Irrigation system</li> <li>• Understand the root spreading of Bamboo crop</li> <li>• Understand the soil texture, porosity etc</li> <li>• Water drainage in the field</li> </ul>	White Board, Marker, Laptop, projector

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 10:00  <b>Corresponding NOS Code</b> AGR/N6106	<ul style="list-style-type: none"> <li>Understand the required optimum moisture level in the field for Bamboo cultivation</li> <li>Prepare Irrigation Schedule</li> <li>Perform the Irrigation Management</li> </ul>	
8	<b>Integrated Pest and Disease Management in Bamboo Growing</b>  <b>Theory Duration</b> (hh:mm) 10:00  <b>Practical Duration</b> (hh:mm) 15:00  <b>Corresponding NOS Code</b> AGR/N6107	<ul style="list-style-type: none"> <li>Understand the major pests and disease in Bamboo crop</li> <li>Understand the Characters of different insect pests</li> <li>Understand the symptoms of and precaution measures for different diseases</li> <li>Identify the stage of incidence and symptoms of insect, pest and disease attack</li> <li>Follow the Package of Practice for the Bamboo Cultivation</li> <li>Understand the suitable chemical for the insect pest and diseases attack</li> <li>Understand the importance of Integrated Pest and Disease Management</li> <li>Perform the Integrated Pest and Disease Management</li> </ul>	White Board, Marker, Laptop, projector
9	<b>Harvest and post harvest management in Bamboo cultivation</b>  <b>Theory Duration</b> (hh:mm) 10:00  <b>Practical Duration</b> (hh:mm) 15:00  <b>Corresponding NOS Code</b> AGR/N6108	<ul style="list-style-type: none"> <li>Harvesting of the crop               <ul style="list-style-type: none"> <li>Time of harvesting</li> <li>Method of harvesting</li> <li>Do's and don'ts</li> </ul> </li> <li>Handling of the harvested produce</li> <li>Storage of the harvested produce</li> <li>Manage post harvesting and storage               <ul style="list-style-type: none"> <li>Drying of Bamboo culms</li> <li>Seasoning</li> <li>Packing</li> <li>Proper storage practices</li> </ul> </li> <li>Understand the importance of Post harvest Management</li> <li>Marketing of the produce               <ul style="list-style-type: none"> <li>Identify the market for sale of the produce</li> <li>Right time for sale of the produce</li> </ul> </li> </ul>	White Board, Marker, Laptop, projector,
10	<b>Basic farm management</b>  <b>Theory Duration</b> (hh:mm) 5:00  <b>Practical Duration</b> (hh:mm) 10:00	<ul style="list-style-type: none"> <li>Estimate the cost of production</li> <li>Estimate the required investment</li> <li>Practice Farm management- Soil testing, selection of crop variety, Crop Calendar, Crop rotation, intercropping, schedule for fertilizer, pesticide/chemical application, irrigation schedule, harvesting schedule etc</li> <li>Identify the near market area and keep update on the market prices</li> </ul>	White Board, Marker, Laptop, projector,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<b>Corresponding NOS Code</b> AGR/N9901	<ul style="list-style-type: none"> <li>Keep record on the investment and expenditures</li> </ul>	
11	<b>Assimilating market information</b>  <b>Theory Duration</b> (hh:mm) 5:00  <b>Practical Duration</b> (hh:mm) 5:00  <b>Corresponding NOS Code</b> AGR/N9902	<ul style="list-style-type: none"> <li>Understand the suitable market platform</li> <li>Collect the Market information from the reliable sources</li> <li>Understand the right time, place for the market of the produce</li> <li>Analyse the market information</li> </ul>	White Board, Marker, Laptop, projector,
12	<b>Maintain Health &amp; Safety at the work place</b>  <b>Theory Duration</b> (hh:mm) 5:00  <b>Practical Duration</b> (hh:mm) 10:00  <b>Corresponding NOS Code</b> AGR/N9903	<ul style="list-style-type: none"> <li>Perform General safety Rules</li> <li>Gain Knowledge of various health hazards relevant to workplace and basic first aid training.</li> <li>Understand the basic safety checks and other common reported hazards before all farm operation</li> <li>Understand, identify and study the use of equipment ,processing machine and materials safely and correctly</li> <li>Understand and handle the emergency situation in workplace and during any farm operation</li> </ul>	White Board, Marker, Laptop, projector, Nose masks, first aid kit
	<b>Total Duration:</b>  <b>Theory Duration</b> (hh:mm) <b>80:00</b>  <b>Practical Duration</b> (hh:mm) <b>120:00</b>	<b>Unique Equipment Required:</b> White Board, Marker, Laptop, projector, Record Keeping Book, mulching materials, Chemicals, pruning tools /equipments, Soil testing kit, plastic bags	

Grand Total Course Duration: **200Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Agriculture Skill Council of India](#))



## Trainer Prerequisites for Job role: "Bamboo Grower" mapped to Qualification Pack: "AGR/Q6101, v1.0"

Sr. No.	Area	Details
1	<b>Description</b>	Trainer is responsible for providing the education and skills development training on cultivation of bamboo on a given piece of land, right from procurement of seed material to the sale of farm produce in the market.
2	<b>Personal Attributes</b>	Trainer should be Subject Matter Specialist. He/ She should have good communication and observation skill, leadership skill, practical oriented skill
3	<b>Minimum Educational Qualifications</b>	Diploma, Bachelor Degree in Agriculture Science/ Forestry
4a	<b>Domain Certification</b>	Certified for Job Role: <u>"Bamboo Grower"</u> mapped to QP: <u>"AGR/Q6101, v1.0"</u> . Minimum accepted score is 80%.
4b	<b>Platform Certification</b>	Certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted score is 70%
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>• Post graduate with an experience of 1 Year,</li> <li>• Graduate with experience of 3 + Years,</li> <li>• Diploma with relevant experience of 5+ Years.</li> </ul>

### Annexure: Assessment Criteria

<b>Assessment Criteria</b>	
<b>Job Role</b>	Bamboo Grower
<b>Qualification Pack</b>	AGR/Q6101, v1.0
<b>Sector Skill Council</b>	Agriculture

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 70% in aggregate
6	The marks are allocated PC wise; however, every NOS will carry a weight age in the total marks allocated to the specific QP

Assessable Outcome	Assessment Criteria	Total Marks	Out Of	Marks Allocation	
				Theory	Skills Practical
1. AGR/N6101 Prepare and manage nursery in bamboo growing	PC1. ensure nursery site to be near plantation areas with accessibility to proper transportation, communication and operations	75	2	1	1
	PC2. ensure appropriate infrastructure and equipments availability for nursery preparation		2	1	1
	PC3. plough the soil, level the land and ensure appropriate soil conditions		3	1	1
	PC4. ensure the nursery to have a good balance of sunlight and shade		2	1	1
	PC5. ensure appropriate size and layout for the nursery		2	1	1
	PC6. make irrigation and drainage channels		3	1	2
	PC7. dug trenches and gutters to prevent water from flooding the container field		3	1	2
	PC8. sow the seed at correct depth and appropriate spacing		5	2	3
	PC9. water the seedling at appropriate time with appropriate method		5	2	3
	PC10. ensure a permanent supply of water to the nursery site		3	3	0
	PC11. apply manures and fertilizers as necessary and recommended		9	2	7
	PC12. take up weed control		7	3	4
	PC13. net the nursery bed		4	2	2
	PC14. control pests and diseases		10	5	5
	PC15. engage in formative pruning in early stages of the plant time for the plant		2	2	0
	PC16. prune at the correct location in plant		5	2	3
	PC17. follow the accepted method of pruning		3	3	0

	PC18. dress the locations after pruning with appropriate chemicals		4	2	2
	PC19. maintain the land clean after the pruning		1	1	1
	<b>TOTAL</b>		<b>75</b>	<b>36</b>	<b>39</b>
2. AGR/N6102 Prepare planting material for Bamboo cultivation	PC1. identify the agro-climatic conditions, climate, soil type and required yield for which cultivation is taken up	50	2	1	1
	PC2. list the varieties that are suitable to the zone		2	1	1
	PC3. select economically attractive variety which will give good yield and are resistant to pests and diseases		5	3	2
	PC4. identify various cost-effective and quality vendors/suppliers (including government nurseries/universities) of the planting material, if the farmer is not preparing the planting material		3	2	1
	PC5. ascertain the quality of planting material from each source in terms of 'free from pests and diseases', 'survival rate' etc.		3	2	1
	PC6. ascertain the prevailing market price for the planting material		2	1	1
	PC7. procure the appropriate planting material		1	0	1
	PC8. ascertain the right storage time for planting material based on the practice adopted		3	1	2
	PC9. store the planting material in a convenient and shaded part of plantation site		2	1	2
	PC10. ascertain the prevalent pests and diseases of bamboo in a given agro-climatic zone		4	2	2
	PC11. ascertain the correct pesticides, fungicides and other appropriate chemicals to be used for the treatment		7	3	4
	PC12. treat the planting material appropriately as per the dosage recommended by the State Agriculture University/ Department or as prescribed by the pesticide manufacturer		10	5	5

	PC13. follow the safety precautions as per the instruction manual that comes with the pesticide		2	1	1
	PC14. ensure availability of all the necessary first aids as suggested in the safety measures		2	1	1
	PC15. effectively use all the necessary safety material and follow all the preventive measures to avoid any injury during usage/application of pesticide		2	1	1
	<b>TOTAL</b>		<b>50</b>	<b>25</b>	<b>25</b>
3. AGR/N6103 Prepare land and plant the planting material	PC1. plough the land as deep as possible appropriately for cultivation	50	1	0	1
	PC2. create proper drainage systems		1	0	1
	PC3. select the appropriate field layout based on the variety, yield expected and its arrangement		2	1	1
	PC4. place markers at the site at appropriate distances		1	0	1
	PC5. prepare bunds and trenches sufficiently in advance to stabilize them before planting is taken up		1	0	1
	PC6. identify pit size to ensure desired spacing and depths		1	1	0
	PC7. ensure the pit to be deep enough to ensure the roots of the plants not to curl up		1	1	0
	PC8. turn the soil in the pit thoroughly, a few days before planting		1	0	1
	PC9. mix the soil in the pit with adequate quantity of FYM or vermicompost, neemcake, urea, super phosphate, murite of potash, and others as required		4	2	2
	PC10. remove the weeds from the pit		1	0	1
	PC11. level the pit with mixed and enriched soil		1	0	1
	PC12. irrigate the pits at right amounts and allow dryness		2	1	1
	PC13. use appropriate land preparation equipments like ploughs, disc harrows, etc		1	0	1

PC14. decide on the planting density based on the size and dimensions of the species to be planted	1	1	0
PC15. ensure appropriate soil and climatic condition	1	1	0
PC16. clean and plough the land to get appropriate tilth	2	1	1
PC17. prepare the land with ridges and furrows	2	1	1
PC18. harden the plants at the nursery before transporting them to the field	2	1	1
PC19. ensure plants with well developed roots and rhizomes are selected	1	1	0
PC20. trim down the long stems of the plants at the nursery to appropriate height before transporting	1	0	1
PC21. handle the plants carefully when transplanting to the field	1	1	0
PC22. water the plants before transport	1	1	0
PC23. transplant the plants at appropriate time	2	1	1
PC24. transplant the plants at appropriate stage	2	1	1
PC25. ensure appropriate spacing and distance while planting	1	1	0
PC26. intercrop with vegetable and cash crops to keep soil and the plant cool and for growing faster	1	1	0
PC27. plant at early hours of morning	1	1	0
PC28. maintain the plants in a shaded area and protect from direct sunlight	1	1	0
PC29. ensure the plantation is not too far apart leading to suffer from canopy exposure, loss of soil moisture through evaporation and competition from weeds and other vegetation	1	1	0
PC30. ensure plantation is also not too closely denser leading to the plants competing for proper light, space, soil moisture and nutrients	1	1	0

	PC31. irrigate the plants depending on the climatic conditions		2	1	1
	PC32. apply the required and recommended fertilizers		4	2	2
	PC33. replace the dead seedlings and cuttings which do not adapt and survive to the new environment		1	0	1
	PC34. remove unwanted, old and rotting clumps, without allowing many branches unattended to grow up, to prevent clump congestion and to promote healthy growth		1	0	1
	PC35. thin the clumps to provide space for new shoots to emerge		1	0	1
	PC36. perform pruning at appropriate periods, season and month to reduce clump congestion		1	0	1
	<b>TOTAL</b>		<b>50</b>	<b>25</b>	<b>25</b>
4. AGR/N6104 Manage soil nutrient in bamboo growing	PC1. understand the basic macro & micro nutrients with their functions	75	9	4	5
	PC2. take sample soil and undertake soil testing to determine its nutrient content at authorized testing laboratories for analysis		10	5	5
	PC3. interpret the soil analysis report from the lab		8	4	4
	PC4. collect the recommended organic and inorganic fertilizer dosage and macro nutrients from Agriculture Department based on the soil analysis report		20	10	10
	PC5. apply suitable farm yard manure and fertilizers		10	5	5
	PC6. apply necessary fertilizers and manures in prepared soil in right proportion		5	2	3
	PC7. apply at the appropriate distance, dosage and apt time in the prepared field		8	4	4
	PC8. maintain the right pH value in the soil		5	3	2
	<b>TOTAL</b>		<b>75</b>	<b>37</b>	<b>38</b>
5. AGR/N6105 Weed	PC1. perform weeding periodically	25	2	1	1

management in bamboo growing	PC2. ensure that weeding is done appropriately without leaving any parts (root system) of weeds		1	1	0
	PC3. identify the types of weed in the plant		3	1	2
	PC4. regulate the chemical application during soil preparation so that land does not become agreeable to weeds		3	2	1
	PC5. apply correct dosage of herbicide and other chemicals at appropriate time for controlling and managing weeds		5	2	3
	PC6. undertake manual weeding at appropriate time and intervals		4	2	2
	PC7. use mechanical weeding equipments like hoes, where applicable		4	2	2
	PC8. incorporate mulching to control weeds in the plant and keep the soil moist		2	1	1
	PC9. dispose the removed weeds properly		1	0	1
	<b>TOTAL</b>		<b>25</b>	<b>12</b>	<b>13</b>
6. AGR/N6106 Irrigation management in bamboo growing	PC1. ascertain the right amount of water required based on the needs, soil moisture and climate of the place of cultivation at the right time	25	9	5	4
	PC2. use appropriate irrigation systems wherever possible and applicable		4	2	2
	PC3. ensure periodical irrigation		3	1	2
	PC4. avoid excessive watering		4	2	2
	PC5. effectively use the irrigation system in place (in case of micro irrigation)		5	3	2
	<b>TOTAL</b>		<b>25</b>	<b>13</b>	<b>12</b>
7. AGR/N6107 Integrated pests and diseases management in bamboo growing	PC1. understand the common pests in bamboo cultivation	75	5	2	3
	PC2. identify the stage and location of the pest incidence		7	4	3
	PC3. diagnose symptoms and extent of damage		8	4	4
	PC4. adopt direct pest control methods		10	5	5
	PC5. use appropriate chemicals in right quantities as recommended		15	9	6



	PC6. identify the type of disease, according to stage and location where the disease would occur		10	5	5
	PC7. analyze the symptoms and take the necessary prophylactic and curative measures		15	8	7
	PC8. use appropriate and suitable pest and disease resistant varieties		5	2	3
	<b>TOTAL</b>		<b>75</b>	<b>39</b>	<b>36</b>
8. AGR/N6108 harvest and post harvest management in bamboo growing	PC1. harvest the crop at the right time	50	4	2	2
	PC2. ensure selective and systematic cutting of mature clumps		3	1	2
	PC3. harvest the culms from the centre		3	2	1
	PC4. plan the cutting operation carefully and use sharp tools, which is advised to be disinfected before harvest		4	2	2
	PC5. do not cut young culms unless congestion		1	1	0
	PC6. do not harvest culms during rainy season		1	1	0
	PC7. transport the harvested bamboo to the storage site		1	0	1
	PC8. harvest the crop at the appropriate stage		2	1	1
	PC9. harvest the crop in right time of the day		1	0	1
	PC10. use the appropriate type of harvest – manual or mechanized –depending on the type of planting material		2	1	1
	PC11. undertake drying and seasoning of bamboo culms		5	2	3
	PC12. undertake packing of the bamboo culms		3	1	2
	PC13. maintain ideal storage condition		7	3	4
	PC14. manage the storage from pests and termites		10	5	5
	PC15. identify the right market for sale of produce		1	1	0
	PC16. analyze the right time for sale considering the periodical demand for the produce		1	1	0
	PC17. coordinate and negotiate with procurement assistant of the buyer for best price		1	1	0

	TOTAL		50	25	25
9. AGR/N9901 Basic farm management	PC1. choose the crop based on agro-climatic condition of the region	25	2	1	1
	PC2. take sample of the soil for testing		3	1	2
	PC3. perform intercropping with suitable and recommended crops (as per the main crop cultivated)		1	0	1
	PC4. perform crop rotation with suitable crops		1	0	1
	PC5. interact with agriculture / extension expert for crop planning		1	1	0
	PC6. choose crop based on the economic advantage		1	1	0
	PC7. maintain crop production activity record		1	0	1
	PC8. maintain crop calendars		3	2	1
	PC9. maintain calendars of weed		1	1	0
	PC10. maintain insect and pest calendar		2	1	1
	PC11. ascertain total cost of production (land, production practices, labour, equipment , fuel, administrative cost etc.)		1	1	0
	PC12. maintain records of investment and expenditure		1	1	0
	PC13. maintain necessary books of accounts		1	1	0
	PC14. identify government schemes and their eligibility for availing themselves of the same		2	1	1
	PC15. identify the nearest market		1	1	0
	PC16. identify local traders, mandis in the villages and nearby and compare the rates		1	1	0
	PC17. identify market rates of the produce season wise		1	0	1
	PC18. arrange cost-effective transportation of produce to the market		1	0	1
<b>TOTAL</b>		<b>25</b>	<b>14</b>	<b>11</b>	

10. AGR/Ngg02 Assimilating market information	PC1. understand the different sources of information at village-level through other farmers, neighbours, relatives, agricultural extension workers, agriculture specialists, concerned government and private departments like gram panchayat, co-operative societies and SHGs etc.	1	1	0
	PC2. identify different sources of information at market level through commission agents, mandi samitis and input dealers	1	1	0
	PC3. identify different sources of information through media sources like radio, newspapers, television, magazine internet, SMS in mobile phones etc.	1	1	0
	PC4. identify the appropriate sources of specific market information and proper ways to collect the required information	1	1	0
	PC5. identify the reliable source of information	1	1	0
	PC6. ascertain methods of collecting information through personal visit, telephone, internet and published reports, magazines and articles, workshops, attending seminars and training by agriculture extension service providers	1	0	1
	PC7. ascertain periodicity and cost of assessing market information	1	0	1
	PC8. ascertain availability and non-availability of specific market information	1	0	1
	PC9. perform documentation for analysing market information	1	0	1
	PC10. evaluate the authenticity of information received	1	0	1
	PC11. analyse the information for taking decision	1	0	1
	PC12. utilize market information for taking cost effective production decisions	2	1	1
	PC13. understand quality-wise and variety-wise prices of different products such as seeds, pest, fertilizer, etc	1	1	0

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	PC14. use market information and decide on crop and area to be sown which could result in better productivity for the season		2	1	1
	PC15.utilize market information for taking effective pre-harvesting decisions like seed preparation, land preparation, nutrition management, weed management, pest and diseases management and irrigation management		2	1	1
	PC16.utilize market information for appropriate post-harvesting decision like drying , grading, bagging, transportation, processing and storage		2	1	1
	PC17.decide on marketing parameters like where to sell, when to sell, to whom to sell and what quantity to sell etc. which leads to profit		2	1	1
	PC18.understand benefits derived from market information		1	1	0
	PC19.make projections/future price movements through information sources		1	1	0
	PC20.understand price fluctuations in markets and take appropriate decision		1	1	0
	<b>TOTAL</b>		<b>25</b>	<b>14</b>	<b>11</b>
11. AGR/N9903 Maintain health and safety at the workplace	PC1. undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor	25	5	2	3
	PC2.work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.		2	0	2
	PC3.read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc		1	1	0

PC4.assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice.	1	1	0
PC5.use equipment and materials safely and correctly and return the same to designated storage when not in use	4	2	2
PC6.dispose of waste safely and correctly in a designated area	3	1	2
PC7.recognise risks to bystanders and take action to reduce risk associated with jobs in the workplace	1	1	0
PC8. perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely.	1	0	1
PC9. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger.	1	1	0
PC10. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.	1	0	1
PC11. follow emergency procedures to company standard / workplace requirements	1	0	1
PC12. use emergency equipment in accordance with manufacturers' specifications and workplace requirements	1	0	1
PC13.provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques	1	0	1
PC14. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate	1	0	1
PC15. report details of first aid administered in accordance with workplace procedures.	1	1	0
	<b>25</b>	<b>10</b>	<b>15</b>

	TOTAL	500	500	250	250
	<u>Percentage Weightage:</u>			<u>50%</u>	<u>50%</u>
	<u>Minimum Pass% to qualify (aggregate):</u>			60%	