

**PRODUCTION TECHNOLOGY FOR NEUTRAL FLAVOR VIRGINIA TOBACCO
CY 2015-2016**

TECHNOLOGY COMPONENT	DETAILS		
1. Variety	Black Shank	Fusarium Wilt	
	Reams 266	R	R
	DH 48	R	
	Coker 254		
	Golden Harvest		
	Giant Coker		
	NC2326		
	Note: R- resistant		
2. Sowing Date	September to October 30		
3. Transplanting Cut-off Date	December 15		
4. Transplanting Method	Furrow		
5. Distance of Planting	0.80m-1.00 m x 0.50 m		
6. Number of plants per ha	20,000 - 25,000		
7. Replanting	Within 5 days after transplanting (DAT)		
8. Fertilizer Rate (kg N-P ₂ O ₅ -K ₂ O/ha)	N= 46-62 P ₂ O ₅ = 36-38 K ₂ O= 48-75		
9. Fertilizer Source & Time and Method of Application	Quantity	Rate & Source	Method and Time
	Combination 1		
	5 bags	organic fertilizer	basal, single band along furrows, 0 DAT
	5 bags	10 -15-20	basal, single band along furrows, 0 DAT
	1 bag	0 - 0 - 50	basal, single band along furrows, 0 DAT
	2 bags	21 - 0 - 0	sidedress, single band, 21-28 DAT
	Combination 2		
	5 bags	organic fertilizer	basal, single band along furrows, 0 DAT
	4 bags	10 -18-24	basal, single band along furrows, 0 DAT
	1 bag	0 - 0 - 50	basal, single band along furrows, 0 DAT
4 bags	21 - 0 - 0	sidedress, single band, 21-28 DAT	

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10. Watering, Irrigation Method & Schedule	<p>Watering Method and Schedule</p> <p>1st at transplanting @ 1 li/plant</p> <p>2nd 5 DAT @ 1 li/plant</p> <p>3rd 14 DAT @ 2-3 li/plant</p> <p>Irrigation</p> <p>1st 21 to 28 DAT, after hilling-up, alternate furrows</p> <p>2nd 31 to 42 DAT, in alternate furrows</p> <p>3rd after first priming, all furrows;</p> <p>4th after 3rd priming, all furrows;</p> <p>5th after the 5th priming depending on soil moisture</p>											
11. Crop Protection Agents (CPAs)	<p>NOTE: THE FARMERS ARE ENCOURAGED TO APPLY CPAs ONLY AS NEEDED. To avoid CPA residues on tobacco, reduce farmers' exposure to CPAs, and, prevent insect resistance development, spray only when the insect or population is beyond ETL.</p> <p>INSECT Economic Treshold Level (ETL)</p> <p>CUTWORM 5 out of 100 plants (5%) with recent cutworm</p> <p>BUDWORM 2 budworm larvae in 4 random sample groups of 10 plants each</p> <p>APHIDS 5 out 50 plants have at least 50 aphids in a leaf</p> <p>LOOPERS Treat when 10 % or more of the plants checked are infested with live worms of any size.</p> <p>LEAF MINERS</p> <p>KATYDID Treat when 5 katydids are seen per 50 plants.</p> <p>NOTE: REFER TO ANNEX "H" FOR THE SAFE USE AND MANAGEMENT OF CROP PROTECTION AGENTS (CPAs)</p>											
	GROWTH STAGE	ACTIVE INGREDIENT	BRAND NAME	TOXICITY CATEGORY	MODE OF ACTION	TARGET PESTS	DOSAGE PER 16 L	PRODUCT VOLUME	NO. OF SPRAYING S	Maximum Tankload/(L for seedbed) per ha	PRE-HARVEST INTERVAL (days)	RE-ENTRY PERIOD (hours)
	Seedling	Propamocarb HCl	Proplant, Previcur-N	IV	systemic	Pythium spp						
		Acephate	Blackhawk	III	contact, systemic, stomach		30ml	57ml		1-2 liter/10		24
			Compete 75 SP			systemic	cutworm	20g	37.5g		3	24

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12. Harvesting	<p>Harvest mature leaves as indicated by the following:</p> <ul style="list-style-type: none"> - leaf color changes from light green to yellow green - yellowing of the leaf tips - midrib turns light green <p>Important:</p> <p>Haul leaves immediately after harvest and unload under the shade, using cheese cloth, bamboo slats, C48 Carton, and buri "silag" as matting material.</p> <p>File the leaves upright with the butt ends down</p> <p>Sort, stick, pile the sticked leaves properly in shaded area and hang inside the barn within the day</p> <p>Start firing within 12 hours after hanging/loading.</p>																	
13. Sorting Before Sticking	<p>Harvest mature leaves as indicated by the following:</p> <ul style="list-style-type: none"> Ripeness Injury Length 																	
14. Flue- Curing Barn Dimension and Fixtures (for 0.50 ha farm)	<table border="1"> <tbody> <tr> <td>Inside dimension</td> <td>L= 3.0 m; W= 3.8 m; H= 4.5 m</td> </tr> <tr> <td>Height of first tier</td> <td>1.5 m - 1.8m</td> </tr> <tr> <td>No. of tiers</td> <td>5</td> </tr> <tr> <td>Distance between tiers</td> <td>0.75 m</td> </tr> <tr> <td>Number of bottom vents</td> <td>8 (2 per side)</td> </tr> <tr> <td>Size of bottom vents</td> <td>L=30 cm; W=15 cm, with adjustable up and down cover</td> </tr> <tr> <td>Top Vent</td> <td>Ridge type; L = 3.6 m; W= 0.3 m</td> </tr> <tr> <td>Ratio of vent to barn volume</td> <td>1:03</td> </tr> </tbody> </table>	Inside dimension	L= 3.0 m; W= 3.8 m; H= 4.5 m	Height of first tier	1.5 m - 1.8m	No. of tiers	5	Distance between tiers	0.75 m	Number of bottom vents	8 (2 per side)	Size of bottom vents	L=30 cm; W=15 cm, with adjustable up and down cover	Top Vent	Ridge type; L = 3.6 m; W= 0.3 m	Ratio of vent to barn volume	1:03	<p>Capacity:</p> <ol style="list-style-type: none"> 1. For 23,000 plant population per hectare or 11,500 plants per 0.5 ha <ul style="list-style-type: none"> Number of sticks per load - 750 Stick length - 60 cm Number of leaves per stick - 46 Distance between pole - 10 cm 2. For 23,810 plant population or 11,905 plants per 0.50 ha <ul style="list-style-type: none"> Number of sticks per load- 812, add 2 columns in between the ridge and the top most tier
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TECHNOLOGY COMPONENT	DETAILS
Furnace Type	Modified venturi furnace Modified Anawang furnace
Non-traditional or Additional fuel	Corn Cob for Modified Anawang Furnace
Fixture	Removable chicken wire mesh 15 cm below the leaves on the first tier Insulator like C48 carton in case of barn with GI wall. Psychrometer to monitor temperature and relative humidity inside the barn. Curing graph/chart guide
15. Classification of Cured Leaves	The cured leaves must be classified based on the following: Leaf position Color Length Injury/damage
16. Straight Laid Open Bale (SLOB) System	Size of Bale Box : Size varies according to the requirement of the company in relation to the size of their grading ramp but the weight should not be more than 50 kg. Place 4 pieces of abaca twine inside the baling box just enough to tie the leaves in the box. Put leaves of similar size and quality in a bale. Tie leaves before removing the bale box. REMINDER: KEEP THE MOISTURE CONTENT OF THE LEAVES AT 18% OR LESS
REFER TO ANNEX "I" FOR THE ELIMINATION OF NON-TOBACCO RELATED MATERIALS (NTRM)	