

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

TECHNOLOGY COMPONENT	DETAILS					
1. Variety	Bacterial Wilt	RKN	Black Shank	Fusarium Wilt	TMV/CMV	
	TN 90	S	S	MT	S	R
	CC812G	HR	S	R	MR	S
	NC 7	S	HR	R	HR	R
	KT 206	S	S	HR	S	R
<i>Note: HR - highly resistant; R- resistant; MR- moderately resistant; MT- moderately tolerant; S- susceptible</i>						
2. Sowing date	September to November 30					
3. Transplanting Cut-off Date	January 15, 2015					
4. Transplanting Method	Ridge planting					
5. Distance of planting	0.8 - 1.0m x 0.50 m					
6. Number of plants/ha	20,000 - 25,000					
7. Replanting	Within 5 days after planting					
8. Fertilizer Rate (kg N-P <sub>2</sub> O <sub>5</sub> -K <sub>2</sub> O/ha)	<b>ULPI</b>	185-54-72				
	<b>TMI</b>	124-72-96				
	<b>Conleaf</b>	180-37.5-75				
9. Fertilizer Source & Time and Method of Application	Quantity	Rate & Source	Method and Time			
	<b>ULPI</b>					
	6 bags	10-18-24	Band application along planting furrows at transplanting.			
	4 bags	46-0-0	Sidedress as band along the furrows after off-barring at 10-14 DAT			
	6 bags	21-0-0	Sidedress as band along the furrows during hilling -up at 25-28 DAT			
	<b>TMI</b>					
	5 bags	Organic Fertilizer	} Band application along planting furrows at transplanting.			
8 bags	10-18-24					
8 bags	21-0-0	Sidedress as band along the furrows after off-barring at 18-21 DAT				

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	<p><b>Conleaf</b></p> <p>5 bags 10-15-20 Band application along planting furrows at transplanting.            4 bags 46-0-0 Sidedress as band along the furrows after off-barring at 10-14 DAT            6 bags 21-0-0 Sidedress as band along the furrows during hilling -up at 25-28 DAT            1 bag 0-0-50 Band application along planting furrows at transplanting.</p>											
10. Irrigation Method and Schedule	<p><b>Watering</b></p> <p>1st at transplanting at 1 li per plant            2nd 7 DAT at 2 li per plant</p> <p><b>Irrigation</b></p> <p>1st 10 -18 DAT all furrows            2nd 21-28DAT all furrows            3rd 35 to 42 DAT all furrows            4th After first priming, alternate furrows            5th After third or fourth priming depending on soil moisture, alternate furrows</p>											
11. Crop Protection Agents Fungicide	<p><b>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.</b></p> <p><b>INSECT PESTS Economic Treshold Level (ETL)</b></p> <p>CUTWORM 5 out of 100 plants (5%) with recent cutworm            BUDWORM 2 budworm larvae in 4 random sample groups of 10 plants each            APHIDS 5 out 50 plants have at least 50 aphids in a leaf            LOOPERS Treat when 10 % or more of the plants checked are infested with live worms of any size.            LEAF MINERS            KATYDID Treat when 5 katydids are seen per 50 plants.</p> <p><b>NOTE: REFER TO ANNEX "H" FOR THE SAFE USE AND MANAGEMENT OF CROP PROTECTION AGENTS (CPAs)</b></p>											
	GROWTH STAGE	ACTIVE INGREDIENT	BRAND NAME	TOXICITY CATEGORY	MODE OF ACTION	TARGET PESTS	DOSAGE PER 16 L	PRODUCT VOLUME	NO. OF Sprayings	Maximum Tankload/(L for seedbed) per ha	PRE-HARVEST INTERVAL (days)	RE-ENTRY PERIOD (hours)
	Seedling	Propamocarb HCl	Proplant, Previcur-M	IV	systemic	Pythium spp						
		Acephate	Blackhawk		contact, systemic,		30ml	57ml		1-2 liter/10		24
			Compete 75 SP		systemic	cutworm	20g	37.5g		sqm bed	3	24

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	Vegetative (10 - 34 DAT)	Acephate	Blackhawk	III	contact, systemic,	cutworm, budworm,loopers	30ml	120ml	1	4		24	
			Compete 75 SP		systemic	cutworm, budworm,loopers	20g	80g	1	4	3	24	
		Chlorantraniliprole	Prevathon 5 SC	IV	systemic	cutworm, budworm,loopers	25ml	140ml	1	7	3	12	
	Early Maturity (35 – 50 DAT)	OR	Bt + Pyridalyl	Dipel + Pleo	IV	systemic	cutworm, budworm, loopers,	30g+20ml	330g+220ml	1	11		
			Acephate	Compete 75 SP	III	systemic	cutworm, budworm,loopers, aphids	20g	220g	1	11	3	24
		OR	Flubendiamide	Blackhawk	III	contact, systemic, stomach	cutworm, budworm,loopers, aphids	30 ml	330 ml		11		24
				Fenos 480 SC	IV	systemic	cutworm, budworm	4ml	50-75ml	1	13-19	5	24
	Maturity (60 DAT) until the third or fourth harvest depending on insect population and crop stand		Bt + Pyridalyl	Dipel + Pleo	IV	systemic	cutworm, budworm,loopers	30g+20ml	360g+240ml	1	12		
			Indoxacarb	Steward 30 WDG	III	contact, stomach, ovicidal	cutworm, budworm,loopers, leaf miners	4g sachet	40g=10 sachet	1	10	7	12
										Total Tankloads	48-56		
<b>"FLOWER HEAD REMOVAL at full bloom and field sanitation are important IPM strategies that can sustainably reduce insect infestation on tobacco".</b>													

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12. Harvesting	<p>Harvest mature leaves, starting at 55-60 DAT, as indicated by the following:</p> <ul style="list-style-type: none"> <li>- leaf color changes from light green to yellow green</li> <li>- browning of the leaf tips</li> <li>- midrib turns light green</li> </ul> <p><b>Important:</b> Haul leaves immediately after harvest and unload under the shade, using cheese cloth, bamboo slats, C4 cartons and "silag" buri as matting material. File the leaves upright with the butt ends down Sort, stick, and hang the leaves within the day</p>										
13. Air-Curing Barn Dimension	<p>Curing shed with black plastic cover Dimension (for 1/2 hectare):</p> <table border="1" data-bbox="331 576 1167 724"> <tr> <td>Floor</td> <td>L= 4.5 m; W= 20.0 m</td> </tr> <tr> <td>Height</td> <td>3.0 m</td> </tr> <tr> <td>No. of Tiers</td> <td>3</td> </tr> <tr> <td>Distance between Tiers</td> <td>0.75 m</td> </tr> <tr> <td>Height of first Tier</td> <td>0.85 m</td> </tr> </table>	Floor	L= 4.5 m; W= 20.0 m	Height	3.0 m	No. of Tiers	3	Distance between Tiers	0.75 m	Height of first Tier	0.85 m
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14. Sorting and Bundling	<p>Sort and bale tobacco leaves according to:</p> <ul style="list-style-type: none"> <li>Leaf position</li> <li>Color</li> <li>Length</li> <li>Injury/damage</li> </ul> <p><b>REMINDER: KEEP THE MOISTURE CONTENT OF THE LEAVES AT 18% OR LESS</b></p>										
15. Straight Laid Open Bale (SLOB) System	<p>Size of Bale Box :</p> <p>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.</p> <p>Pre classify the leaves by leaf position</p> <p>Place 4 pieces of abaca twine inside the baling box just enough tie the leaves in the box.</p> <p>Put leaves of similar size and quality in a bale.</p> <p>Tie leaves before removing the bale box.</p>										
<b>REFER TO ANNEX "I" FOR THE ELIMINATION OF NON-TOBACCO RELATED MATERIALS (NTRM)</b>											