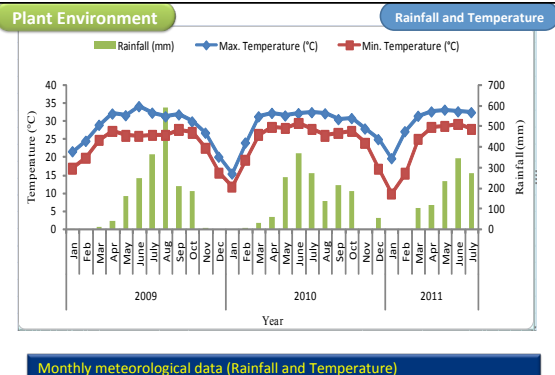


PERFORMANCE OF COTTON UNDER AGROFORESTRY SYSTEMS IN BANGLADESH

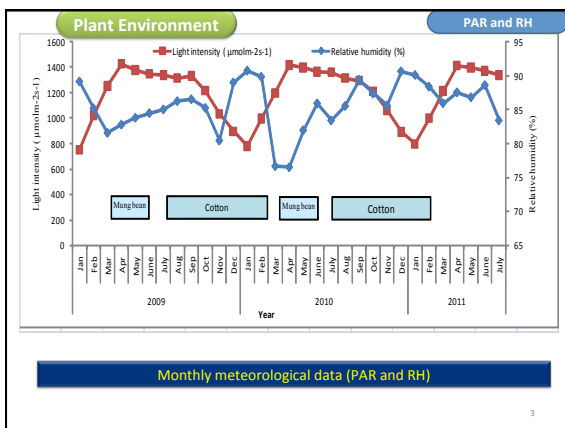


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19 June 2014



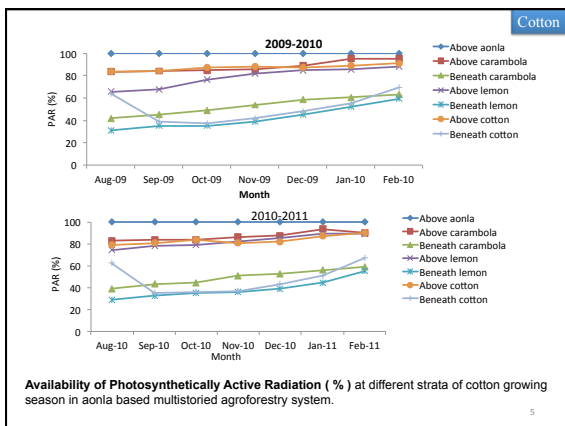
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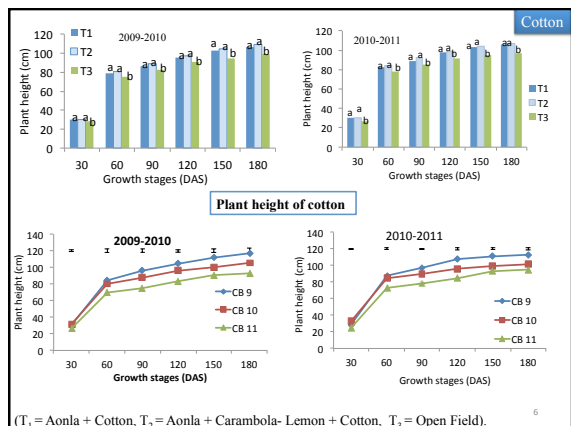
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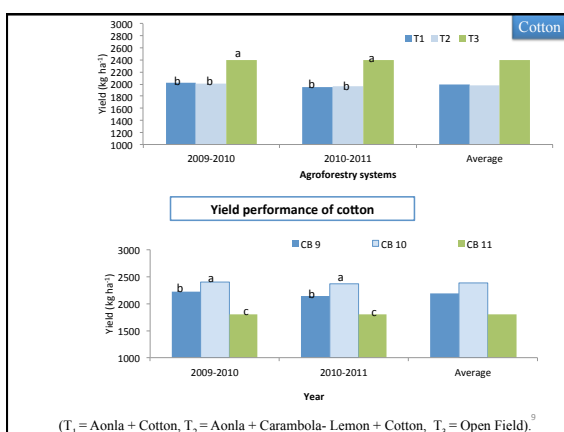
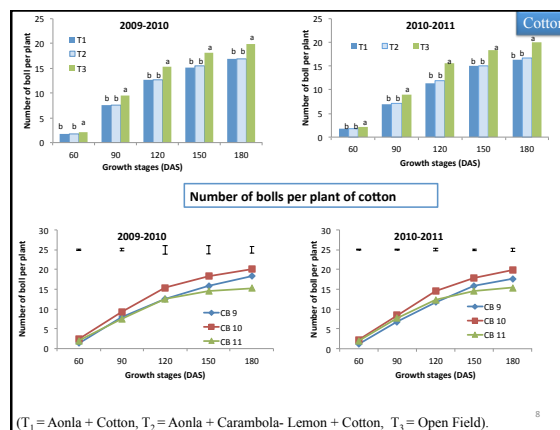
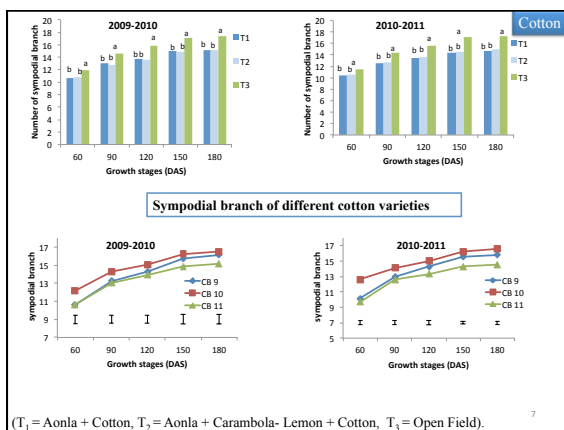
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Interaction effect of agroforestry systems and varieties on yield of cotton			
Treatment Combination	Yield (kg ha ⁻¹)		
	2009-2010	2010-2011	Average
T ₁ V ₁	2098 cd	1925 d	2011.5
T ₁ V ₂	2234 c	2144 c	2189
T ₁ V ₃	1756 e	1774 e	1765
T ₂ V ₁	2073 cd	1946 d	2009.5
T ₂ V ₂	2216 c	2200 c	2208
T ₂ V ₃	1723 e	1749 e	1736
T ₃ V ₁	2511 b	2559 b	2535
T ₃ V ₂	2725 a	2742 a	2733.5
T ₃ V ₃	1942 d	1886 d	1914
CV (%)	3.11	4.78	

T₁ = Aonla + Cotton, T₂ = Aonla + Carambola- Lemon + Cotton, T₃ = Open Field, V₁ = CB 9, V₂ = CB 10 and V₃ = CB 11

Productivity evaluation through harvest index (HI)								
Treatment Combination	Yield (t ha ⁻¹)		Fresh weight (t ha ⁻¹)		Biological yield (t ha ⁻¹)		Harvest index (%)	
	2009-2010	2010-2011	2009-2010	2010-2011	2009-2010	2010-2011	2009-2010	2010-2011
	0	1	0	1				
T ₁ V ₁	2.1	1.93	30.18	30	32.28	31.93	6.51	6.04
T ₁ V ₂	2.23	2.14	25.83	25.13	28.06	27.27	7.95	7.85
T ₁ V ₃	1.76	1.77	22.71	22.21	24.47	23.98	7.19	7.38
T ₂ V ₁	2.07	1.95	29.75	29.83	31.82	31.78	6.51	6.14
T ₂ V ₂	2.22	2.2	25.43	24.54	27.65	26.74	8.03	8.23
T ₂ V ₃	1.72	1.75	23	21.86	24.72	23.61	6.96	7.41
T ₃ V ₁	2.51	2.56	34.93	34.55	37.44	37.11	6.70	6.90
T ₃ V ₂	2.73	2.74	28.75	27.58	31.48	30.32	8.67	9.04
T ₃ V ₃	1.94	1.89	26.38	25.8	28.32	27.69	6.85	6.83

T₁ = Aonla + Cotton, T₂ = Aonla + Carambola- Lemon + Cotton, T₃ = Open Field, V₁ = CB 9, V₂ = CB 10 and V₃ = CB 11

Productivity evaluation through land equivalent ratio (LER)						
Treatment combination	C/Cs		T1/Ts		LER	
	2009-2010	2010-2011	2009-2010	2010-2011	2009-2010	2010-2011
T ₁ V ₁	0.84	0.85	1.23	1.24	2.07	2.09
T ₁ V ₂	0.82	0.82	1.23	1.24	2.05	2.06
T ₁ V ₃	0.81	0.81	1.23	1.24	2.04	2.05
T ₂ V ₁	0.80	0.81	2.20	2.57	3.00	3.38
T ₂ V ₂	0.81	0.82	2.20	2.57	3.01	3.39
T ₂ V ₃	0.80	0.80	2.20	2.57	3.00	3.37
T ₃ V ₁	-	-	-	-	-	-
T ₃ V ₂	-	-	-	-	-	-
T ₃ V ₃	-	-	-	-	-	-

T₁ = Aonla + Cotton, T₂ = Aonla + Carambola- Lemon + Cotton, T₃ = Open Field, V₁ = CB 9, V₂ = CB 10 and V₃ = CB 11

Cotton

Economic performance of cotton

Treatment Combination	Gross return (Tk ha ⁻¹)			Cost of production (Tk ha ⁻¹)			BCR		
	2009	2010	Mean	2009	2010	Mean	2009	2010	Mean
T ₁ V ₁	157350	144375	150863	59610	60110	59860	2.64	2.40	2.52
T ₁ V ₂	167550	160800	164175	59610	60110	59860	2.81	2.68	2.74
T ₁ V ₃	131700	133050	132375	59610	60110	59860	2.21	2.21	2.21
T ₂ V ₁	155475	145950	150713	59610	60110	59860	2.61	2.43	2.52
T ₂ V ₂	166200	165000	165600	59610	60110	59860	2.79	2.74	2.77
T ₂ V ₃	129225	131175	130200	59610	60110	59860	2.17	2.18	2.18
T ₃ V ₁	188325	191925	190125	59610	60110	59860	3.16	3.19	3.18
T ₃ V ₂	204375	205650	205013	59610	60110	59860	3.43	3.42	3.42
T ₃ V ₃	145650	141450	143550	59610	60110	59860	2.44	2.35	2.40

T₁ = Aonla + Cotton, T₂ = Aonla + Carambola- Lemon + Cotton, T₃ = Open Field,
V₁ = CB 9, V₂ = CB 10 and V₃ = CB 11

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Conclusion

Cotton varieties were grown as lowerstoried crops in agroforestry systems. In this system, cotton variety CB 10 were found suitable in aonla based multistoried agroforestry systems in respect of the morphological behavior, yield and yield contributing characters of cotton varieties.

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