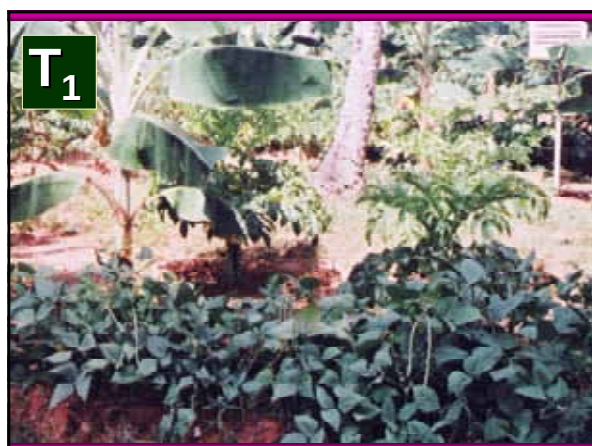
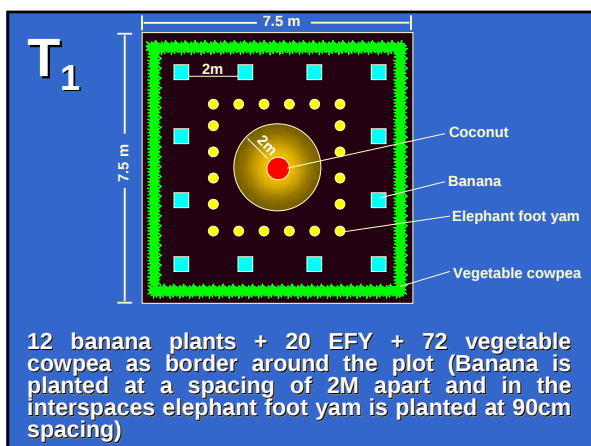
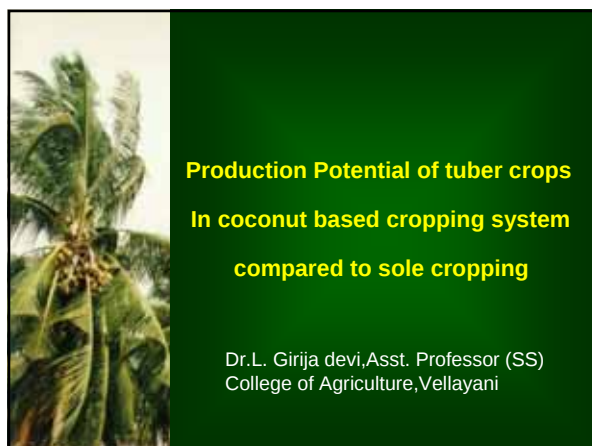
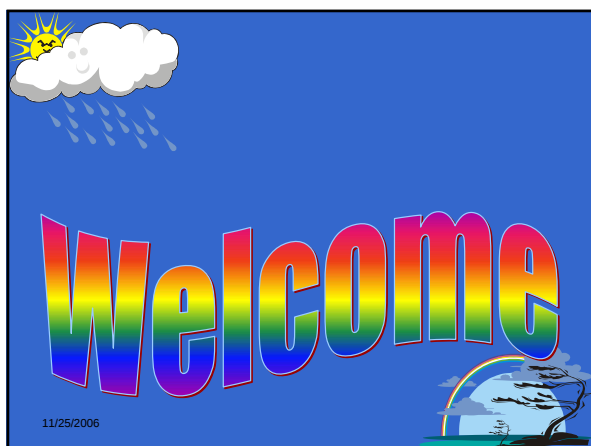
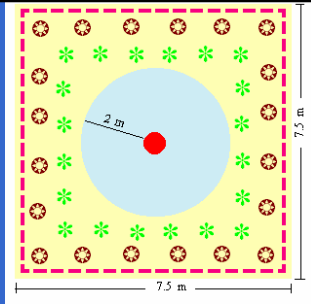




T₂

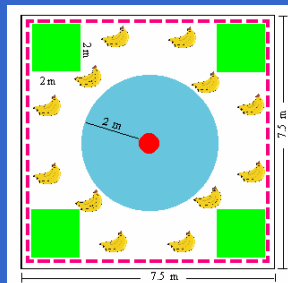


20 cassava plants + 20 EFY + 72 vegetable cowpea (Cassava is planted at 90cm spacing and elephant foot yam also at 90 cm spacing).



T₂

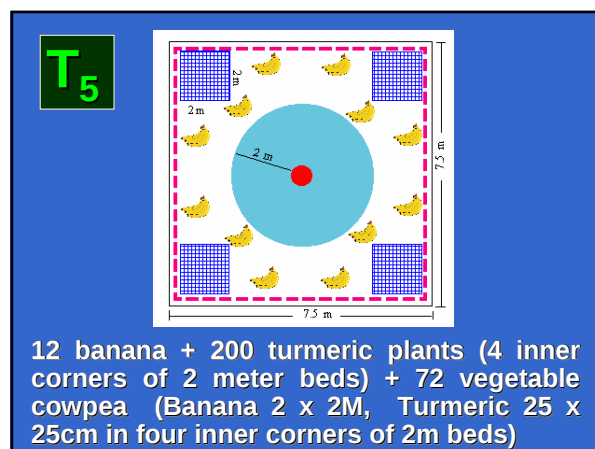
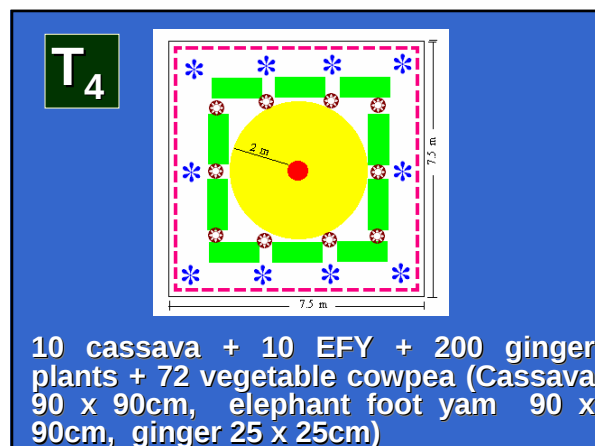
T₃

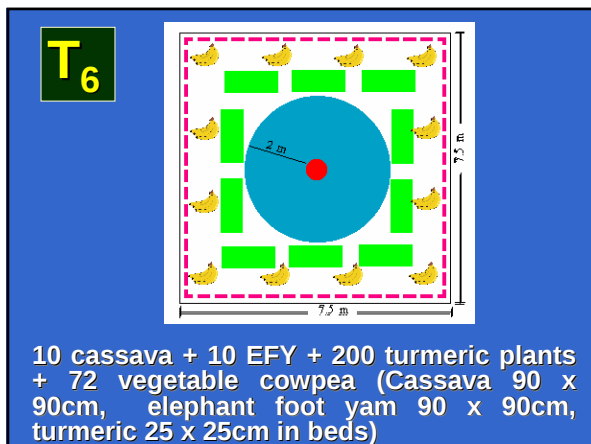


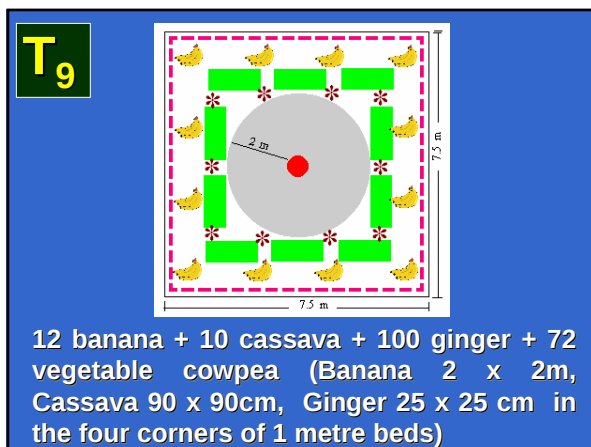
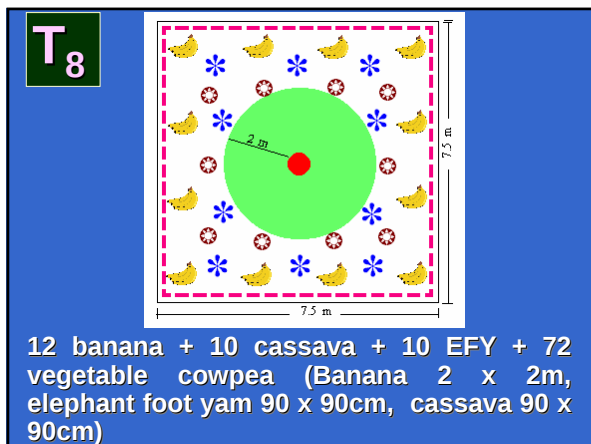
12 banana plants + 200 ginger plants (4 inner corners of 2 meters beds) + 72 vegetable cowpea (Banana – 2m spacing. Ginger - 25 x 25 cm spacing in four inner corners of 2 M beds)



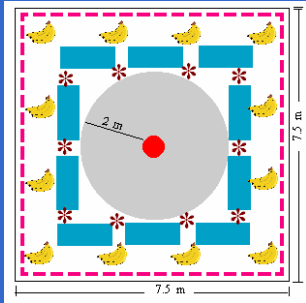
T₃







T₁₀



12 banana + 10 cassava + 100 turmeric + 72 vegetable cowpea (Banana 2 x 2m, Cassava 90 x 90cm, Turmeric 25 x 25 cm in the four corners of 1 metre beds)

T₁₀



Sole crops of banana, cassava, elephant foot yam, ginger, turmeric and vegetable cowpea raised separately and simultaneously in open. A plot of coconut alone is also maintained.



Pure crop - Banana

Pure crop - EFY



Pure crop - Turmeric



Pure crop - Cassava



Pure crop - Ginger





Table 1 Population of coconut and intercrops in different treatments (ha⁻¹)

Treatments	Gross area basis						
	Coconut	Banana	Elephant foot yam	Ginger	Turmeric	Cassava	Vegetablecowpea
T1	175	2132	3555	-	-	-	12800
T2	175	-	3555	-	-	3555	12800
T3	175	2132	-	35555	-	-	12800
T4	175	-	1777	35555	-	1777	12800
T5	175	2132	-	-	35555	-	12800
T6	175	-	1777	-	35555	1777	12800
T7	175	2132	-	-	-	3555	12800
T8	175	2132	1777	-	-	1777	12800
T9	175	2132	-	17777	-	1777	12800
T10	175	2132	-	-	17777	1777	12800
Sole crop	175	2500	12345	100000	100000	12345	111110

Table 2 Economic yield of banana, elephant foot yam, cassava, ginger, turmeric and vegetable cowpea as influenced by cropping systems and sole cropping (kg plant⁻¹)

Cropping systems (Treatments)	Bunch yield in banana	Corm yield in elephant foot yam	Tuber yield in cassava	Rhizome yield in ginger	Rhizome yield in turmeric	Pod yield in vegetable cowpea
T ₁ : B + EFY + VC	10.583	3.763	-	-	-	0.077
T ₂ : C + EFY + VC	-	2.480	4.617	-	-	0.089
T ₃ : B + G + VC	9.417	-	-	0.160	-	0.154
T ₄ : C + EFY + G + VC	-	2.850	7.330	0.110	-	0.088
T ₅ : B + T + VC	11.000	-	-	-	0.081	0.131
T ₆ : C + EFY + T + VC	-	2.507	6.080	-	0.066	0.083
T ₇ : B + C + VC	11.167	-	2.707	-	-	0.134
T ₈ : B + C + EFY + VC	11.083	2.627	5.367	-	-	0.055
T ₉ : B + C + G + VC	10.917	-	4.857	0.130	-	0.051
T ₁₀ : B + C + T + VC	10.667	-	6.453	-	0.094	0.055
Sole crop	12.583	2.260	3.970	0.180	0.094	0.147
CD (0.05)	NS	NS	NS	0.022	NS	0.061

Table 3 Economics of different cropping systems in coconut garden without family labour (Rs.gross ha⁻¹)

Cropping system/ Treatments	Intercrop	Expenditure	Produce (t ha ⁻¹)	Value of Individual Crop	Gross income	Gross Expenditure	Net income	BC ratio
T ₁ : Co + B + EFY + VC	Banana	187866	22.22	266640	329070	291128	37942	1.13
	Elephant foot yam	53362	13.38	53520				
	Vegetable cowpea	50000	0.99	8915				
	Cassava	43000	16.41	57435				
T ₂ : Co + Ca + EFY + VC	Elephant foot yam	53362	8.81	35240	102915	140362	-43427	0.79
	Vegetable cowpea	50000	1.14	10260				
	Banana	187866	18.99	239880				
	Ginger	48000	5.68	68160				
T ₃ : Co + B + G + VC	Vegetable cowpea	50000	1.97	17730	325770	277866	47904	1.17
	Cassava	21500	13.83	45589				
	Elephant foot yam	26681	5.96	20258				
	Ginger	48000	3.91	49220				
T ₄ : Co + Ca + EFY + G + VC	Vegetable cowpea	50000	1.13	10170	122937	138181	-15244	0.89
	Banana	187866	23.10	277260				
	Turmeric	38000	2.88	17279				
	Vegetable cowpea	50000	1.68	15120				
T ₅ : Co + B + T + VC					309599	267866	41733	1.16

Table 3 (contd.)

T_1 : Co + Ca + EFY + T + VC	Cassava	21500	10.80	37815	70255	128181	-8826	0.62
	Elephant foot yam	26681	4.45	17620				
	Turmeric	30000	2.35	14080				
	Vegetable crop(s)	10000	1.06	9540				
T_2 : Co + B + Ca + VC	Banana	187866	23.45	281498	330570	288866	49784	1.18
	Cassava	43000	9.62	33682				
	Vegetable crop(s)	10000	1.72	15480				
T_3 : Co + B + Ca + EFY + VC	Banana	187866	23.27	279291	337643	286047	58286	1.18
	Cassava	21500	9.54	33380				
	Elephant foot yam	26681	4.67	18672				
	Vegetable crop(s)	10000	0.70	6300				
T_4 : Co + B + Ca + G + VC	Banana	187866	22.93	275198	338886	279395	39528	1.23
	Cassava	21500	8.63	30208				
	Ginger	20000	2.31	27720				
	Vegetable crop(s)	10000	0.65	5850				
T_5 : Co + B + Ca + T + VC	Banana	187866	22.40	268898	328001	274366	48235	1.18
	Cassava	21500	11.47	40134				
	Turmeric	15000	1.23	7359				
	Vegetable crop(s)	10000	0.70	6300				

Table 4 Economics of different cropping systems in coconut garden with family labour (Rs.gross ha⁻¹)

Cropping system/ Treatments	Intercrop	Expenditure	Produce (t ha ⁻¹)	Value of individual crop	Gross income	Gross expenditure	Net income	BC ratio
T_1 : Co + B + EFY + VC	Banana	187866	22.22	266640				
	Elephant foot yam	53362	15.38	53520	329070	251228	77842	1.31
	Vegetable crop(s)	10000	0.99	8910				
	Cassava	43000	16.41	57435				
T_2 : Co + Ca + EFY + VC	Elephant foot yam	53362	8.81	35240	102035	106362	-3427	0.97
	Vegetable crop(s)	10000	1.14	10260				
	Banana	187866	19.99	238880				
	Ginger	40000	5.68	68160	325770	237866	87904	1.37
T_3 : Co + B + G + VC	Vegetable crop(s)	10000	1.87	17730				
	Cassava	21500	13.03	45589				
	Elephant foot yam	26681	5.06	20258	122037	96181	24756	1.25
	Ginger	40000	3.91	46920				
T_4 : Co + Ca + EFY + G + VC	Vegetable crop(s)	10000	1.13	10170				
	Banana	187866	23.10	277200				
	Turmeric	30000	2.88	17279	309099	227866	81233	1.36
	Vegetable crop(s)	10000	1.68	15120				

Table 4 (contd.)

T_1 : Co + Ca + EFY + T + VC	Cassava	21500	10.80	37815	70255	88181	-8826	0.90
	Elephant foot yam	26681	4.45	17620				
	Turmeric	30000	2.35	14080				
	Vegetable crop(s)	10000	1.06	9540				
T_2 : Co + B + Ca + VC	Banana	187866	23.45	281498	330570	240866	87704	1.37
	Cassava	43000	9.62	33682				
	Vegetable crop(s)	10000	1.72	15480				
T_3 : Co + B + Ca + EFY + VC	Banana	187866	23.27	279291	337643	246047	91286	1.37
	Cassava	21500	9.54	33380				
	Elephant foot yam	26681	4.67	18672				
	Vegetable crop(s)	10000	0.70	6300				
T_4 : Co + B + Ca + G + VC	Banana	187866	22.93	275198	338886	239366	99528	1.42
	Cassava	21500	8.63	30208				
	Ginger	20000	2.31	27720				
	Vegetable crop(s)	10000	0.65	5850				
T_5 : Co + B + Ca + T + VC	Banana	187866	22.40	268898	328001	234366	88235	1.38
	Cassava	21500	11.47	40134				
	Turmeric	15000	1.23	7359				
	Vegetable crop(s)	10000	0.70	6300				

Table 5 Gross income, net income and BC ratio in sole cropping of different crops in the system (without family labour) (Rs. gross ha⁻¹)

Crop	Gross expenditure (Rs.ha ⁻¹)	Produce (t ha ⁻¹)	Gross income (Rs.ha ⁻¹)	Net income (Rs.ha ⁻¹)	BC ratio
Banana	223650	31.46	377520	153870	1.69
Cassava	149320	49.00	171500	22180	1.15
Elephant foot yam	185303	27.89	111560	-73743	0.60
Ginger	112502	18.00	210000	103498	1.92
Turmeric	84376	9.40	56400	-27976	0.67
Vegetable crop(s)	400000	16.33	146998	-253002	0.37
Coconut	55258	80nuts palm ⁻¹ ha ⁻¹	70000	14742	1.27