

Table 44. Effect of relay times and herbicides on cassava yield in maize/cassava intercropping.

Cassava relay in days	Herbicide		No Herbicide		Mean		
	M/C ¹	C ²	M/C	C	M/C	C	
0	16.8	7.6	22.6	25.7	19.7	16.6	
7	22.4	12.2	22.9	27.0	22.7	19.6	
14	16.7	13.9	23.5	22.3	20.1	18.1	
21	13.0	9.1	23.1	20.6	18.0	14.8	
Mean	13.9		23.5				
LSD	between herbicide					2.7	
	Relay time					5.2	
	Relay time same herbicide					7.3	
	Relay time different herbicide					7.3	

¹ Maize/cassava

² Sole cassava

cant cassava yield reduction was observed where herbicide was used. This yield reduction was ascribed not only to the sensitivity to the herbicide but also to weed competition resulting from failure of the herbicide. This observation is substantiated by a tendency toward lower yields by herbicide treated pure cassava. Shading by maize appeared to have retarded weed growth, thus, reducing the competitive effect on cassava. The results confirm the compatibility of maize/cassava in inter-

cropping and highlight the potential hazard of herbicide failure.

N response in maize/cassava intercropping. The N response of intercropped maize/cassava on an Alagba soil (Oxic paleustalf) at Ikenne that was initiated during the 1978/1979 season was repeated during the 1979/1980 season. During the second year, the maize crop was affected by drought resulting in low yield (Table 45). Despite the low grain yields, the sole and intercropped maize showed significant responses to N application. As observed during the first year of cropping, intercropping with cassava had no effect on maize grain yield. In cassava, high tuber yields were observed with later harvesting (13 months after planting), but no significant response to N application was observed. This indicates that the N requirement is lower for the cassava than the associated maize. High N rates (120 kg N/ha) also tend to decrease the tuber yield of cassava.

Effect of maize population on cassava yield. An experiment was conducted to determine effects of maize population on cassava development and yield in intercropping where maize is planted in hills or clusters. It simulated farm situations where many seeds are placed in 1 position, and the number of surviving plants depends on chance or are deliberately selected by the farmers. The maize was spaced at 100m × 100 m with

Table 45. Effect of N application on yield of intercropped maize (variety TMS 30395) grown on Alagba soil (Oxic paleustalf) (1979-80).

N-Rate kg N/ha	Cropping mixture	Cassava fresh tuber yield t/ha	Maize grain yield	LER*
0	Maize (1 × .33 m, 1 plant/hill)	-	1.80	-
	Maize (1 × 1 m, 3 plants/hill)	-	1.74	-
	Cassava (1 × 1 m)	30.12	-	-
	Maize (1 × .33 m) + cassava (1 × 1 m)	29.11	1.93	1.90
	Maize (1 × 1 m) + cassava (1 × 1 m)	28.89	1.87	2.00
	Maize (1 × .33 m, 1 plant/hill)	-	2.30	-
60	Maize (1 × 1 m, 3 plants/hill)	-	2.40	-
	Cassava (1 × 1 m)	30.90	-	-
	Maize (1 × .33 m) + cassava (1 × 1 m)	27.10	2.45	1.95
	Maize (1 × 1 m) + cassava (1 × 1 m)	29.50	2.39	1.95
	Maize (1 × .33 m, 1 plant/hill)	-	2.28	-
	Maize (1 × 1 m, c plants/hill)	-	2.12	-
120	Cassava (1 × 1 m)	28.65	-	-
	Maize (1 × .33 m) + cassava (1 × 1 m)	24.85	2.52	2.05
	Maize (1 × 1 m) + cassava (1 × 1 m)	29.68	2.10	2.03
	LSD (5%)	3.40	0.40	

Maize crop slightly affected by drought.

Cassava harvested at 13 months.

*Land equivalent ratio.