

2. CASSAVA

CENTRO DE DOCUMENTACION

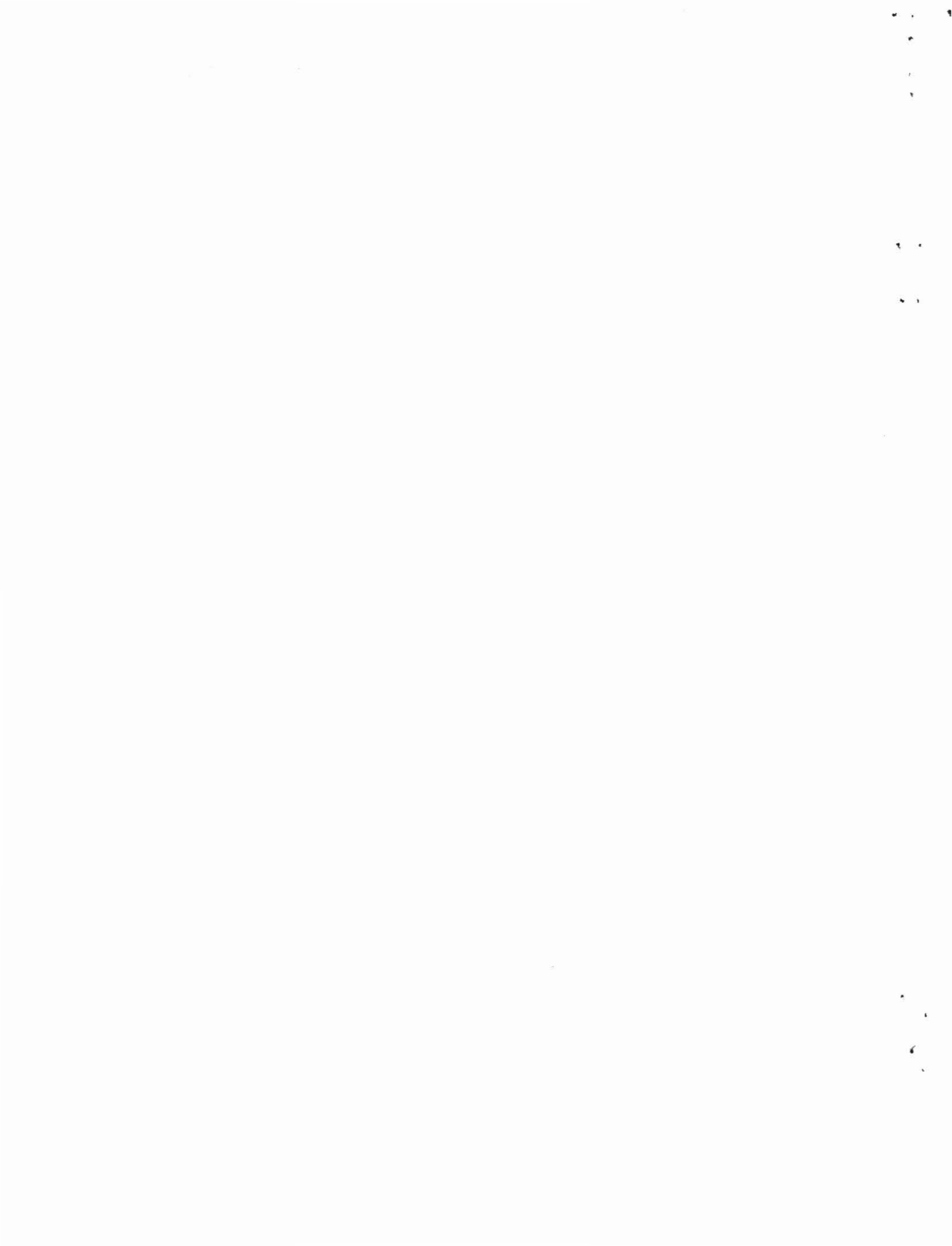
J. Lynam

Cassava production in the 1963/75 period increased at an annual rate of 1.3 percent per year, well below the population growth rate (Table 2.1). Moreover, this increase in production was due to a more than proportionate expansion in area planted, as average yield levels in Latin America declined by 0.7 percent per annum in the period. These trends, however, are dominated by conditions in Brazil, which makes up 85 percent of Latin American production. Inter-country comparisons show that at least half the cassava growing countries in Latin America had production growth rates at least as high as population growth rates. These were principally the lower income countries. Over half the countries as well had increasing trends in yield levels.

Production of cassava in Latin America (on a dry basis) is about two-thirds of total wheat production. Though cassava is an important food source, production has not been growing at as fast a rate as grain crops. In the main producing countries of Brazil and Paraguay production reached a peak around 1970 and has since declined, although in Brazil this is still above 1963/65 levels. This trend was due in Brazil to a slight increase in planted area but declining yields and in Paraguay to reductions in both area and yields. Outside of these two countries production showed a consistent rising trend, especially in the Andean countries (Table 2.2).

Yields of cassava as compared to most other crops show only slight temporal variability (Figure 2.1). Between countries Brazil and the River Plate countries have the highest yields in the 13 to 15 ton/ha range while most other countries in Latin America average 7 to 9 ton/ha. The Andean countries and a few Caribbean countries have shown a slight increase in yields, but principally production has increased in these coun-

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tries through expansion in area.

Consumption of cassava makes up only about 7 percent of the caloric requirements of the Latin American population (Table 2.3). Cassava can be considered a staple only in Brazil and Paraguay. In Brazil consumption is principally concentrated in the Northeast where it makes up about a quarter of total caloric requirements. In Paraguay cassava is also about a quarter of caloric intake.

The Brazilian National Alcohol Commission (CNAL), established in 1975, plans to replace 20 percent of gasoline consumption with alcohol by 1980. Current plans indicate that cassava will be a major raw material source. To date five cassava distilleries have been approved and expansion plans indicate the necessity for an additional one million hectares planted to cassava.

Trade in cassava products from Latin American countries is virtually non-existent. Brazil is the only major exporter but the volume is highly variable, depending on internal market prices. Exports reached a peak of 120 thousand tons in 1965. In the 1970's exports have been in the 20 thousand tons range. By comparison Thailand exported almost 3.5 million tons of cassava pellets to the European Community in 1976.

Prices for cassava products in Latin America are quite variable but suggest a rising trend through the 1970's (Table 2.4). Export prices to European markets have been increasing steadily but continue to remain below domestic prices in Latin American countries.

TABLE 2.1

CASSAVA: GROWTH RATES OF PRODUCTION, AREA AND  
YIELDS OF LATIN AMERICA, BY COUNTRIES  
1963/75

Country	Production	Area	Yields
	----- percentage -----		
Brazil	1.2*	2.1***	-0.9*
Colombia	5.4***	3.8***	1.6
Paraguay	-1.1	-0.7	-0.4
Peru	0.3	-2.1***	2.4***
Ecuador	7.4***	5.2***	2.2*
Venezuela	-0.4	4.6***	-5.1***
Argentina	0.7	0.9	-0.2
Cuba	2.5***	3.0***	-0.5**
Bolivia	5.0***	4.3***	0.7
Dominican Rep.	1.4*	2.6***	-1.2
Haiti	2.8***	1.3***	1.5***
Honduras	6.0***	3.6***	2.4***
Panama	6.2***	9.8***	-1.6
Jamaica	5.2**	-2.9	8.1**
Nicaragua	3.1***	2.4***	0.7
El Salvador	4.9***	1.9	3.0
Guyana	3.8***	0.0	3.8***
Costa Rica	-0.6	-3.3***	2.7**
Guatemala	3.1***	2.4**	0.7
Puerto Rico	-2.4**	7.6***	5.2***
French Guyana	-0.4***	3.5***	-3.9***
Guadalupe	-2.9	n.a	n.a
Martinic	0.0	n.a	n.a
Surinam	1.1	n.a	n.a
Barbados	0.0	n.a	n.a
Latin America	1.3**	2.1***	-0.7

\*(P&lt;.1)

\*\*(P&lt;.05)

\*\*\* (P&lt;.01)

Source: See Lynam (3).

TABLE 2.2

CASSAVA: TOTAL AND PER CAPITA PRODUCTION IN  
LATIN AMERICA, BY COUNTRIES  
AVERAGES FOR 1963/65 AND 1973/75

Country	1973/75	1963/65		1973/75	
	Per-capita production	Total produc- tion	Percent of total	Total produc- tion	Percent of total
	-kilogram-	'000 tons	- % -	'000 tons	- % -
Brazil	245	23866	85.9	25986	84.3
Colombia	54	733	2.6	1353	4.4
Paraguay	446	1320	4.8	1117	3.6
Peru	32	461	1.7	479	1.6
Ecuador	57	215	0.8	396	1.3
Venezuela	25	318	1.1	301	1.0
Argentina	10	244	0.9	261	0.8
Cuba	25	180	0.6	234	0.8
Bolivia	45	143	0.5	233	0.8
Dominican Rep.	35	153	0.5	169	0.5
Haiti	29	111	0.4	144	0.5
Honduras	14	24	0.1	44	0.1
Panama	25	19	0.1	40	0.1
Jamaica	9	9	0.0	19	0.1
Nicaragua	8	13	0.0	18	0.0
El Salvador	4	9	0.0	15	0.0
Guyana	18	10	0.0	14	0.0
Costa Rica	5	10	0.0	10	0.0
Guatemala	1	5	0.0	7	0.0
Puerto Rico	2	6	0.0	5	0.0
French Guyana	69	6	0.0	4	0.0
Trinidad & Tobago	5	4	0.0	5	0.0
Guadalupe	9	5	0.0	3	0.0
Martinic	8	3	0.0	3	0.0
Surinam	5	2	0.0	2	0.0
Barbados	4	1	0.0	1	0.0
Latin America	126	27870	100.0	30863	100.0

Source: See Lynam (3)

TABLE 2.3

CASSAVA: PER-CAPITA APPARENT CONSUMPTION IN  
LATIN AMERICA, BY COUNTRIES  
1964/66

Country	Production per-capita ----- kg/year -----	Consumption per-capita	Calorie per day	Cassava as percentage of minimum calorie requirement ----- % -----
Paraguay	722	181	540	23.4
Brazil	298	105	274	11.5
Ecuador	23	15	41	1.8
Colombia	43	26	74	3.2
Bolivia	40	26	74	3.1
Dominican Rep.	43	23	82	3.6
Peru	41	30	88	3.7
Haiti	27	23	69	3.1
Cuba	26	22	65	2.8
Penama	16	11	35	1.5
Venezuela	34	25	68	2.8
Guyana	16	14	41	1.8
Honduras	11	11	31	1.4
Argentina	11	5	12	0.5
Jamaica	5	3	11	0.5
Nicaragua	9	8	21	0.9
Costa Rica	7	6	17	0.9
El Salvador	3	3	8	0.3
Puerto Rico	2	2	6	0.3
Guatemala	1	1	3	0.1
Latin America <sup>1</sup>	139	53	158	6.6

<sup>1/</sup> Also includes Mexico, Uruguay, Chile, and Trinidad & Tobago

Source: See Lynam (3).

TABLE 2.4  
 PRICES OF CASSAVA PRODUCTS IN SELECTED MARKETS  
 1970/76

Year	Fresh cassava Colombia <sup>1</sup>	Cassava flour Brazil <sup>2</sup>	Cassava pellets European community <sup>3</sup>
----- U.S.\$ per kilogram -----			
1970	n.a	7.8	n.a
1971	n.a	11.0	6.6
1972	9.4	10.8	7.4
1973	7.9	10.8	9.0
1974	8.6	14.8	10.6
1975	10.4	21.5	11.9
1976	7.4	n.a	12.0

1/ Average wholesale price, Llanera, Bogotá.

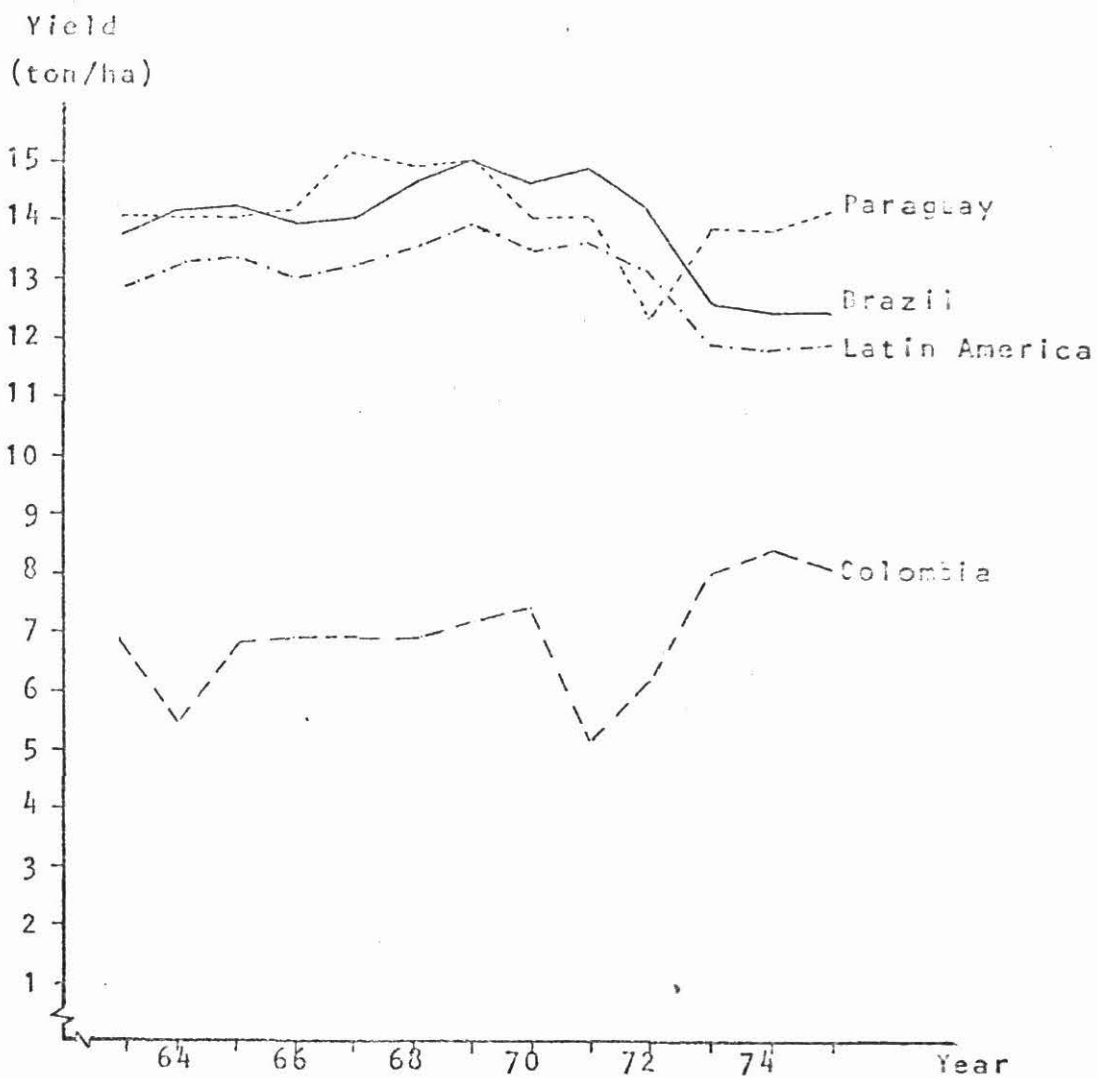
2/ Average wholesale price, flour, Sao Paulo.

3/ Thai native pellets, afloat, c.i.f. Rotterdam.

Source: See Lynan (3).

FIGURE 2.1

AVERAGE CASSAVA YIELDS IN LATIN AMERICA AND THE  
THREE MAJOR PRODUCING COUNTRIES  
1963/75



Source: See Lynam (3).



## SOURCES AND REFERENCES

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