



DEVELOPMENT OF NEW SWEETPOTATO VARIETIES FOR THE PHILIPPINES

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ABSTRACT

Two new sweetpotato varieties were recently released and approved by the National Seed Industry Council of the Philippines as recommended varieties. These include the NSIC Sp 31 developed by the University of the Philippines at Los Baños (UPLB), College, Laguna and NSIC Sp 32 developed by PhilRootcrops, LSU, Visca, Baybay, Leyte. These varieties underwent multi-location testing in different cooperating stations nationwide.

In terms of yield NSIC Sp 31 which has purple root skin and white flesh, had surpassed the check varieties PSB Sp 17 and PSB Sp 23. In terms of dry matter content and general acceptability, the new variety is comparable to the check varieties. However, it has higher sugar, protein and starch contents.

On the other hand, NSIC Sp 32 which has pinkish red skin and yellow flesh had comparable yield with the two check varieties. However, it has higher ratings in flavor and acceptability, as well as dry matter, sugar and starch contents. It also exhibited resistance to scab and weevil.

INTRODUCTION

Sweetpotato (*Ipomoea batatas* L.) is one of the important crops in the Philippines. It is used as food, feed and raw materials of some industrial products. Because of these, PhilRootcrops and other cooperating stations continually developed and produced new sweetpotato varieties with desirable characteristics.

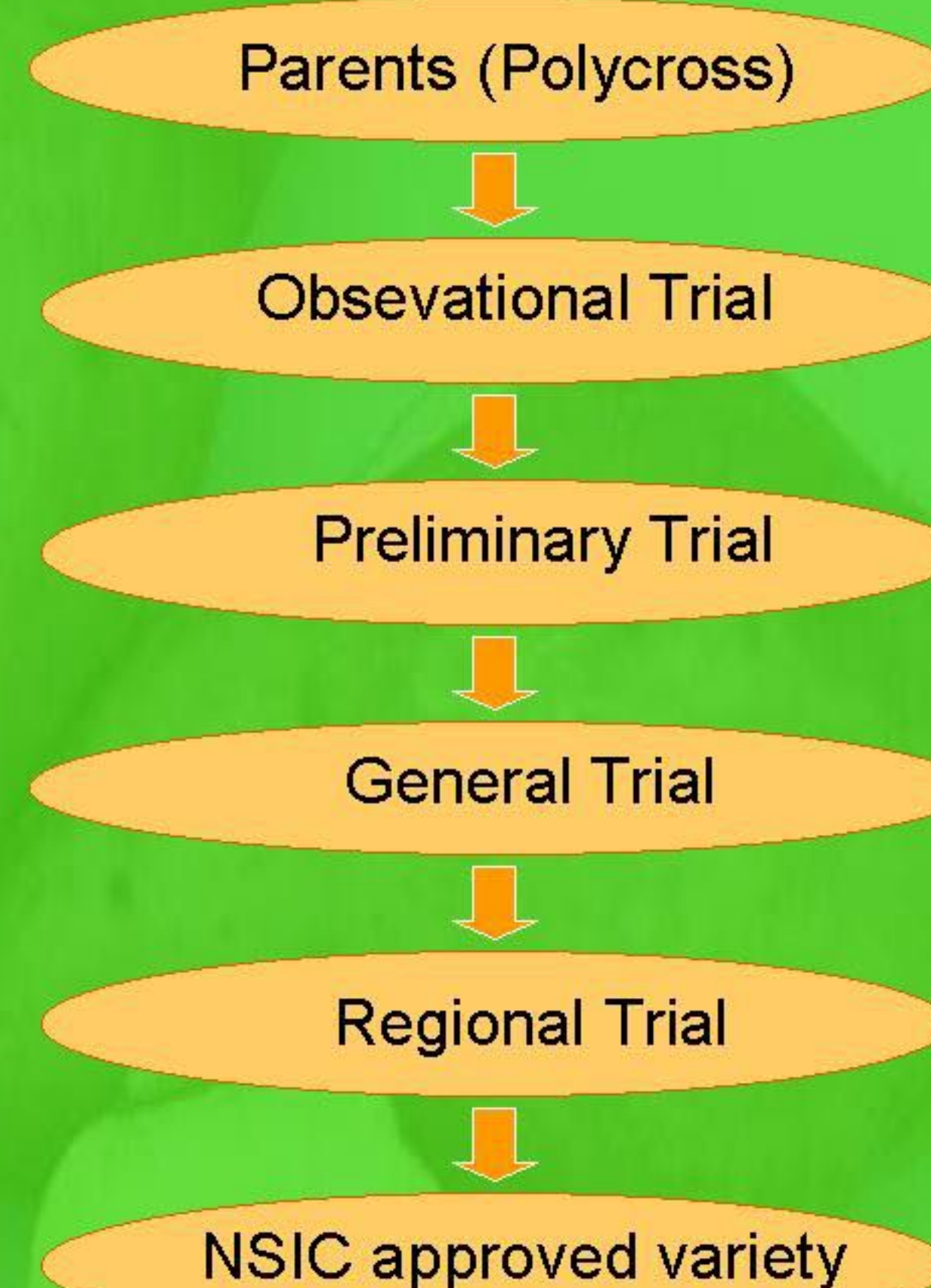
OBJECTIVES

To evaluate the performance of promising sweetpotato genotypes in strategic sites of the country and to recommend to the National Seed Industry Council (NSIC) the release of new sweetpotato varieties.

RESULTS & DISCUSSION

NSIC Sp 31 (SG 99-09-02) showed higher yield compared to the two check varieties PSB Sp 17 and PSB Sp 23. It had medium dry matter, sugar and starch contents but high in flavor and general acceptability ratings. It also showed resistance to scab and weevil. On the other hand, NSIC Sp 32 (JK 0-20-4) had comparable yield with that of the three check varieties PSB Sp 17, PSB Sp 23 and NSIC Sp 30, however, it had high dry matter, sugar and starch contents. It had high flavor and general acceptability ratings. It also exhibited resistance to scab and weevil (Tables 1 and 2).

METHODOLOGY



NSIC Sp 31

Table 1. Yield (t ha⁻¹) of different sweetpotato genotypes under Regional Trials (CY 2004-06).

Entry	2004-2005		2005-2006		Overall Mean
	WS	DS	WS	DS	
JK 032	7.32	9.67	-	-	8.69
JK 01-2000	10.28	15.91	5.03	5.76	9.24
JK 0-10-2	10.89	14.38	-	-	12.63
JK 0-20-1	12.98	11.88	-	-	12.36
JK 0-20-4	12.03	15.05	13.74	12.21	13.26
BSU Sp	9.55	8.19	7.92	13.90	9.98
USM 1378	13.46	13.13	8.26	7.68	10.63
SG 01-02r-01	10.40	11.82	-	-	11.06
SG 1-05-01	10.37	16.14	-	-	13.05
SG 99-09-02	13.80	19.51	-	-	16.65
SG 01-04-01	11.74	14.13	-	-	12.94
PSB Sp 17 (check)	14.77	16.40	-	-	15.63
PSB Sp 23 (check)	10.54	15.41	-	-	12.82
NSIC Sp 30 (check)	-	-	15.28	13.12	13.99



NSIC Sp 32

RECOMMENDATION

The two new developed sweetpotato varieties NSIC Sp 31 and NSIC Sp 32 were recommended for food, feed and as raw materials for other industrial products like starch and flour.

These two varieties can grow well in different regions of the country more particularly in Mindanao.

For more information, please contact PhilRootcrops, LSU, Visca, Baybay, Leyte with tel no. 053 335 2616.

Acknowledgement

1. PhilRootcrops – Leyte State University
2. NRCCTP Cooperating Stations

Table 2. Important characteristics of new varieties

Characteristics	NSIC Sp31	NSIC Sp-32
Root yied (t ha ⁻¹)	16.7	13.3
Dry matter (%)	33.0	34.0
Starch (%WB)	23.6	25.4
Sugar (%WB)	2.7	3.2
Protein (%WB)	1.8	1.9
Flavor	good	very good
General acceptability	good	very good
Reaction to scab	resistant	resistant
Reaction to weevil	resistant	resistant