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Effect of Tassel Removal for Baby Corn (*Zea mays* L.) Production in Kentucky

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EFFECT OF TASSEL REMOVAL FOR BABY CORN (*Zea mays* L.)
PRODUCTION IN KENTUCKY

A Thesis
Presented to
The Faculty of the Department of Agriculture
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science

By
Christopher G. Ferguson

May 2012

EFFECT OF TASSEL REMOVAL FOR BABYCORN PRODUCTION IN
KENTUCKY

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24 Pages

Directed By: Elmer Gray, Martin J. Stone, and William T. Willian

Department of Agriculture

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Baby corn (*Zea mays* L.) consists of unfertilized young ears harvested at silk emergence. The 2011 study was a culmination of four successive years of production and evaluation of baby corn at Western Kentucky University (36.93 N, 86.47 W). The objective was to compare the effect of tassel removal on baby corn (BC) production on four cultivars of corn, two field ('N77P-3000GT', 'N68B-3000GT') and two sweet ('Silver Queen', 'Peaches N Cream'). Results indicated that tassel removal gave significant increases ($P < 0.01$) of BC ears across harvests (H) and cultivars; however, the effect was not consistent over treatments. For harvests, the difference due to detasseling was significant ($P < 0.05$) for H2 and H3, but not significant ($P > 0.05$) for H1 or H4. For cultivars, numerical values were higher for detasseled than non-detasseled treatments in the first three harvests for each cultivar, but significant ($P < 0.05$) only for 'Peaches n' Cream'. Quality of BC from both tassel treatments decreased in H3 and H4. Based upon the increased number of ears resulting from detasseling, additional labor costs would be more than covered. Baby corn has excellent potential as a niche crop for producers and consumers in Central Kentucky.

CHAPTER 1

INTRODUCTION

Corn (*Zea mays* L.) is one of the world's oldest and most widely grown grain crops. Through centuries of evolution, many types of corn have developed. A most recent variant is baby corn, which originated in Taiwan and Thailand in the late 1900s. Baby corn has gained worldwide acceptance as a human food.

World leaders in Baby Corn (BC) production and consumption include Asia, Africa, and South America. Some of the major exporters of BC include Thailand, Sri Lanka, Taiwan, China and Honduras. The United Kingdom and the United States are the major importers of BC. Statistical information on baby corn production is limited due to failure of many producing countries to report production data.

While the United States is the largest importer of BC, domestic production is nil. BC can be sold fresh, frozen, or canned. Most of the fresh, imported BC is consumed at high-end restaurants, whereas canned BC is sold in supermarkets and other grocery stores. Recent awareness of nutritional diet needs has resulted in more interest in locally grown fresh foods. BC has high nutritional value and has been shown to be suitable as a niche crop for providing extra income for farm families. Corn culture is widely established in the United States; however, unique aspects of BC production need further study. One of the chief aspects of BC production is the role of the plant's tassel on ear production. Since BC consists of unfertilized ears, impact of the tassel is undefined. Recent research indicates that tassel removal may increase productivity under some conditions, but the effect of detasseling is inconsistent. The present study had a three-

fold purpose: 1) to further elucidate the effect of tassel removal on BC production, 2) to compare cultivars, including field and sweet corn, for BC production, and 3) to continue evaluation of BC as a potential niche crop for Central Kentucky.

CHAPTER 2

REVIEW OF LITERATURE

Origin and Production of Baby Corn

Corn (*Zea mays* L.) has long been the major grain crop of the United States and the third most important cereal crop of the world. Having originated in Central America, corn was developed and cultivated by Native Americans for centuries. By the time of Columbus, the major types of corn (dent, flint, flour, pop, and sweet) were under production in both North and South America (Boyer and Hannah, 2001). BC is a more recent form of corn that can be produced from present cultivars of the older types. It consists of young finger-length fresh ears harvested at the silk emergence stage prior to fertilization.

BC originated in Taiwan and received early attention in Thailand where the Department of Agriculture initiated a baby corn breeding program in 1976 and by 1998 was exporting an estimated 54.6 thousand tons (Aekatasanawan 2001, Smith et al. 2004). Although United States ranks as the largest BC importer, its contribution to BC production and research has been minimal. Galinat (1988) credited the plight of this situation to the labor intensity of BC production and to the economic importance of BC in Asia. He emphasized that Asian knowledge and experience could be adapted to U.S. agriculture.

Culture and Production of Baby Corn

BC is more the product of its culture than genetics. Genetically, BC is derived from field, sweet, or popcorn. Most BC comes from existing cultivars that were

developed for other purposes, especially field corn. In addition to being a suitable BC producer, the larger amount of plant residues from field corn is used for livestock feed (Cheva-Isarak and Paripattananont, 1988). Field corn cultivars were developed for important traits, including seedling vigor, insect and disease resistance, plant and ear aspects, early silk emergence, shorter height, and ear prolificacy. These traits are desirable in BC production. Also, sweet corn is widely used in BC production. Kernel sweetness is an endosperm characteristic and does not influence its BC suitability. Sweet corn is grown in every state by home vegetable producers making it readily available for BC production. In addition to desirable characters possessed by field corn for BC production, sweet corn has smaller ears, ear uniformity, ease of ear snapping, greater huskability, more tillering, lower ear and plant height (Tracy, 2001). Popcorn may also be used for producing BC. It is prolific with most cultivars producing more than one ear per plant. Its smaller and harder endosperm is more like dent corn, but does not preclude the use of popcorn for BC. Only limited research data are available on cultural practices applicable to popcorn (Ziegler, 2001).

Although BC production is based upon agronomic practices employed in other types of corn production, there are specific cultural differences for BC. Plants are grown at high plant densities (120,000 to 160,000 plants^{ha-1}). BC is characterized by its sweetness, flavor, and crispness. To maximize these traits, the corn is harvested at or near silk emergence when the ear is in the range of 4 to 9 cm in length and 1.0 to 1.5 cm in width (Aekatasanawan, 2001). Bar-Zur and Saadi (1990) found that BC picked 3 to 4 days after silking had lower crispiness. During the four-day period after silking, their

data indicated a linear increase in length, diameter, and weight of BC ears. For ear position, the first ear (uppermost) was longest, widest, and heaviest.

Harvesting high quality BC is labor intensive. A given crop is usually harvested two or three times by hand picking. Galinat and Bor-Yaw (1988) summarized research related to the major systems of BC harvesting systems. In one harvest system, corn is planted at high density (120,000 to 160,000 plants^{ha-1}) with the initial harvest taken at first silking followed by successive harvests as new ear shoots reach silking stage. The other harvest system has a dual purpose with the population being standard (55,000^{ha-1}) for the field or sweet corn. The top ear is retained for grain or sweet corn and lower ears are harvested before pollination for BC. Removal of the second and third ear shoots may increase grain production of the top ear shoot. Wang et al. (2010) utilized a modification of the dual system by taking top ears for BC and leaving the lower ears for grain production. Cumulative BC yields increased as harvest number increased to three. However, average grain yield for the treatments, which had no prior BC harvest, was significantly higher ($P < 0.01$) than treatments having prior BC removal. Grain yields decreased progressively following one, two, and three BC harvests. For this dual system of BC and grain corn, highest projected returns resulted from only BC; lowest projected returns resulted from only grain corn.

Pollination Control in Baby Corn Production

Fertilization resulting in endosperm development must be prevented in BC production. When pollen-producing plants are being used or are present in the vicinity, BC ears are removed before pollination occurs. According to Aekatasanawan et al. (1994) detasseling benefits the BC plant by stimulating earlier harvest dates, by

enhancing prolificacy, and by increasing yield. For two pollen producing varieties of BC, 'Suwan 2(s)C7' and 'Chiangmai90' detasseling resulted in significantly ($P < 0.01$) higher unhusked and husked ear weights and ears per plant. It was suggested that the detasseling responses in BC were similar to those for field corn. Grogan (1956) reported that detasseling responses were affected by weather, soil conditions, and plant competition. These stress conditions enhanced the detasseling effect by eliminating the competition for nutrients between the ear and tassel. Other researchers (Duncan et al., 1967; Hunter et al., 1969) reported that the increase in grain yield from detasseling was greater in higher plant densities resulting from the reduced tassel light interception.

Preparation of Baby Corn for Market

Preparing BC for market is critical in the production of a quality product. The labor requirement involved in husking and silking is the major factor in limiting BC production to geographic regions with plentiful, inexpensive labor. For local buyers of smaller amounts, marketing the corn unhusked helps maintain freshness and shifts husking and silking labor to the consumer. For distant markets and larger local markets, the BC is husked and silked by the producer. Export markets for fresh BC prefer uniform ears that are free of husk leaves and silks and that ears be aligned with tips pointing in the same direction within the package. Research is underway by geneticists to develop silkless cultivars and the Thailand industry is using forced-air machinery to remove silks (RAP Market Information Bulletin, NO (5), 1995). Sweet corn has greater huskability than field corn (Tracy, 2001).

CHAPTER 3

MATERIALS AND METHODS

The BC study was conducted on the Western Kentucky University Farm in Bowling Green, Kentucky (36.93 N latitude and 86.47 E longitude) in 2011. The experimental design was a randomized complete block consisting of three replications and four cultivars, two sweet corn ('Peaches n' Cream', 'Silver Queen') and two field corn ('N68B-3000GT', 'N77P-3000GT'). The cultivars were subjected to two treatments: tassels left intact (T) and tassels removed (DT). Cultivars were randomly located within each replication before being divided into two subplots, one for (T) and one for (DT) treatments (Fig. 1). The pairing arrangement was used to exclude extraneous variation resulting from greater separation of DT and T for a given cultivar within the replication. The differences between DT and T were tested using a t-test for paired comparisons (Steel and Torrie 1980).

Glyphosate was sprayed as a pre-plant weed control. The area was disked and fertilized at 168 Kg^{ha-1} for N, P₂O₅, and K₂O based on soil tests prior to planting and side dressed once with ammonium nitrate at 33.6 Kg^{ha-1}. Plots were seeded on June 6 at a rate of 135,000 seeds^{ha-1} and stand counts were taken after emergence. Tassels were pulled by hand when they became exposed, but before anthesis. Harvesting began on July 18 when emerging silks became visible and continued twice a week for 2 weeks resulting in four harvests per cultivar. Detasseling and harvesting dates are presented in Table 1. Each experimental unit consisted of four rows 7 m in length and spaced .76 m apart. The sampling unit consisted of 5.3 m of the center two rows. After ears were

harvested, they were counted by plot and 10 ears were randomly chosen to be shucked and utilized for

Field Design¹

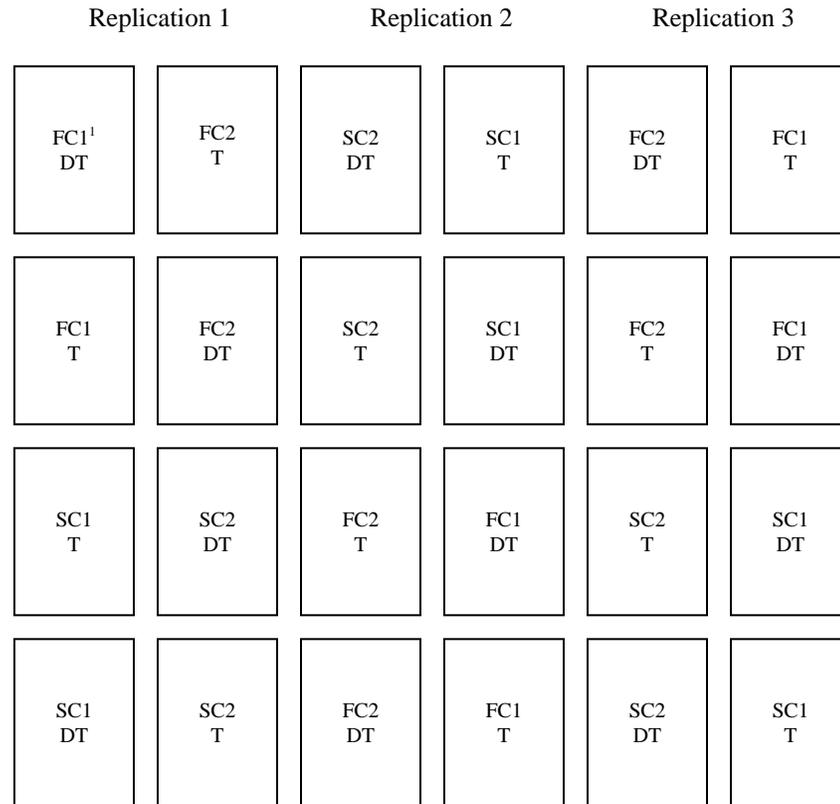


Fig. 1. Illustration of baby corn randomized complete block design with pairing of DT and T within each cultivar.

¹FC= field corn, SC= sweet corn, DT= detasseled, T= tasseled
 FC1- 'Field Corn, N68B-3000GT'
 FC2- 'Field Corn, N77P-3000GT'
 SC1- 'Peaches n' Cream'
 SC2- 'Silver Queen'

Table 1. Cultivars and cultural data for baby corn study conducted at Bowling Green, Kentucky (2011).

Cultivar	Plant date	Detassel date	Harvest date
Peaches n' Cream	6/6	7/13	7/18, 22, 25, 28
Silver Queen	6/6	7/25	7/29; 8/2, 5, 10
N68B-3000GT	6/6	7/20	7/25, 28; 8/2, 5
N77P-3000GT	6/6	7/22	7/25, 28; 8/2, 5

weight and length measurements. These measurement data were used in calculating yields per plot and linear correlations among number of ears, lengths and weights of BC ears. Economic returns for detasseling were calculated by determining the labor cost of pulling the tassels and the returns resulting from the increased number of ears in detasseled as compared to tasseled treatments.

CHAPTER 4

RESULTS

Numbers of BC ears for DT and T plants across harvests and cultivars are listed in Table 2 and presented graphically in Fig. 2. Overall, DT yielded significantly more ears than T, but the differences were not consistent over either harvests or cultivars. For harvests, differences (DT-T) were significant ($P < 0.05$) for H2 and H3 indicating a positive response for detasseling; the effect was not significant for H1 or H4. For cultivars, the difference in favor of DT over T was significant ($P < 0.01$) overall but was statistically significant ($P < 0.05$) for Peaches n' Cream only. Comparing the overall numbers of ears for DT (46,350) with that for T (41,800), the difference was 4,550 for an increase of approximately 11% for DT.

Differences for DT and T were measured at the replication level resulting in 48 observations (3 replications x 4 harvests x 4 cultivars) for the overall comparison of DT-T. For DT-T at the cultivar or harvest level there were 12 observations. Consequently, smaller differences (DT-T) could be detected at the overall level, which had 47 degrees of freedom as compared to the individual harvest or cultivar with 11 degrees of freedom.

There was no significant difference in number of BC ears produced by sweet corn cultivars (Peaches n' Cream and Silver Queen) as compared to field corn cultivars (N68B- 3000GT and N77P- 3000GT).

Average weight of Baby Corn Ears

Average weight of BC for detasseled and non-detasseled plants across harvests and cultivars are presented in Table 3 and Figure 3. Across all harvests and cultivars, the DT treatment ears weighed an average of 100 kg ha⁻¹ more than the

Table 2. Average number of baby corn ears^{ha-1} (1000s) in detasseled (DT) and tasseled (T) treatments by harvests and cultivars at Bowling Green, Kentucky (2011).¹

Cultivar	Harvest 1			Harvest 2			Harvest 3			Harvest 4			Cultivar averages		
	DT	T	DT-T	DT	T	DT-T	DT	T	DT-T	DT	T	DT-T	DT	T	DT-T
Peaches n' Cream	34.6	37	-2.4	53.5	35	18.5	58	38.7	19.3	28.4	35.4	-7	43.6	36.5	7.1*
Silver Queen	14	37.5	-23.5	58.5	51.9	6.6	14.8	19.3	-4.5	32.1	23.5	8.6	29.8	33.0	-3.2 ^{n.s.}
N68B-3000GT	94.3	62.6	31.7	34.6	44	-9.4	60.1	46.5	13.6	21.4	25.5	-4.1	52.6	44.6	8.0 ^{n.s.}
N77P-3000GT	39.5	42.8	-3.3	86.9	63.8	23.1	96.7	70.8	25.9	14.8	35	-20.2	59.4	53.1	6.4 ^{n.s.}
Harvest averages	45.6	45.0	0.6 ^{n.s.}	58.4	48.7	9.7*	57.4	43.8	13.6*	24.2	29.8	-5.7 ^{n.s.}	46.35	41.8	4.55**

¹ Differences between DT and T for harvests or cultivar totals followed by n.s., *, or ** indicate probability levels >0.05, <0.05, or <0.01; respectively.

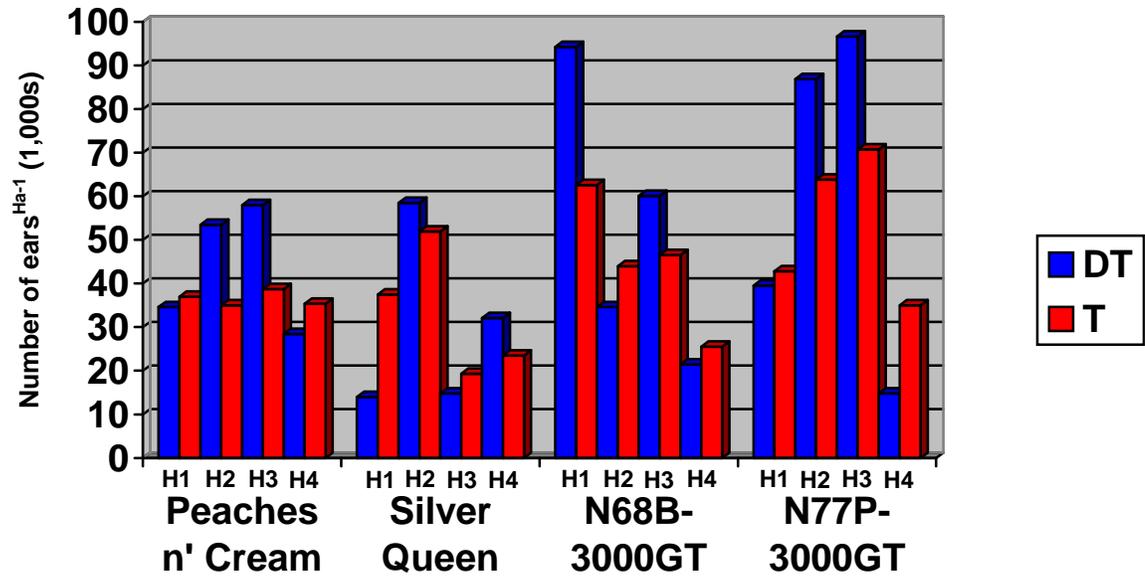


Fig. 2. Number of baby corn ears^{ha-1} (1000s) in detasseled (DT) and tasseled (T) plants by harvests and cultivars at Bowling Green, Kentucky (2011). See Table 2 for numerical values and statistical differences.

T treatment. This significant ($P < 0.05$) increase was approximately 14% for detasseling. However, the response was not consistent for harvests or cultivars. The DT effect was significant for H1 and H2 only. In H1 the effect was due largely to the high production of cultivar N68B-3000GT, especially in the DT treatment. It was the only cultivar to have a positive response to DT in H1. Conversely, this same cultivar was the only one in which DT had less weight than T in H2. No significant difference in average weight of ears was found for sweet corn compared to field corn.

Average length of Baby Corn Ears

DT-T treatment did not result in significant ($P < 0.05$) differences for ear length between harvests or cultivars (Table 4). Average ear length ranged from 10.1 to 11.6 cm for DT and 10.5 to 12.1 cm for T among harvests. Average ear length among cultivars ranged from 9.8 to 11.6 cm for DT and 9.1 to 12.0 cm for T.

Correlation Among Baby Corn Yield Variables

Correlations between the BC yield indices were based upon data at the replication level (Table 5). All the correlations except ear length vs. ear weight in H4, were numerically positive but not consistently significant. In general, there was similarity in the r-values in DT and T for the harvest and cultivar treatments. Number of ears was significantly ($P < 0.01$) correlated with husked ear weight for all treatments. The relationships between ear length and ear weight were variable, being nonsignificant ($P > 0.05$) in DT and T for H2, in DT for H4, and in T for 'Silver Queen'.

Table 3. Average weight ($\text{kg}^{\text{ha}^{-1}}$) of baby corn ears produced in DT and T treatments across harvests and cultivars at Bowling Green, Kentucky (2011).¹

Cultivar	Harvest 1			Harvest 2			Harvest 3			Harvest 4			Cultivar averages		
	DT	T	DT-T	DT	T	DT-T	DT	T	DT-T	DT	T	DT-T	DT	T	DT-T
Peaches n' Cream	242	259	-017	883	507	376	1,305	1,173	132	440	630	-190	720	640	70 ^{n.s.}
Silver Queen	211	540	-329	1,158	607	551	215	260	-045	433	353	80	500	440	60 ^{n.s.}
N68B-3000GT	1,763	989	774	640	739	-99	1,142	986	156	263	332	-69	950	760	190 ^{n.s.}
N77P-3000GT	553	578	-025	1,538	1,117	421	1,837	1,572	265	154	497	-343	1,020	940	80 ^{n.s.}
Harvest averages	690	590	100*	1,050	740	310**	1,120	1,000	120 ^{n.s.}	320	450	-130 ^{n.s.}	800	700	100*

¹ Differences between DT and T for harvest or cultivar means followed by n.s., *, or ** indicate probability levels >0.05, <0.05, or <0.01; respectively

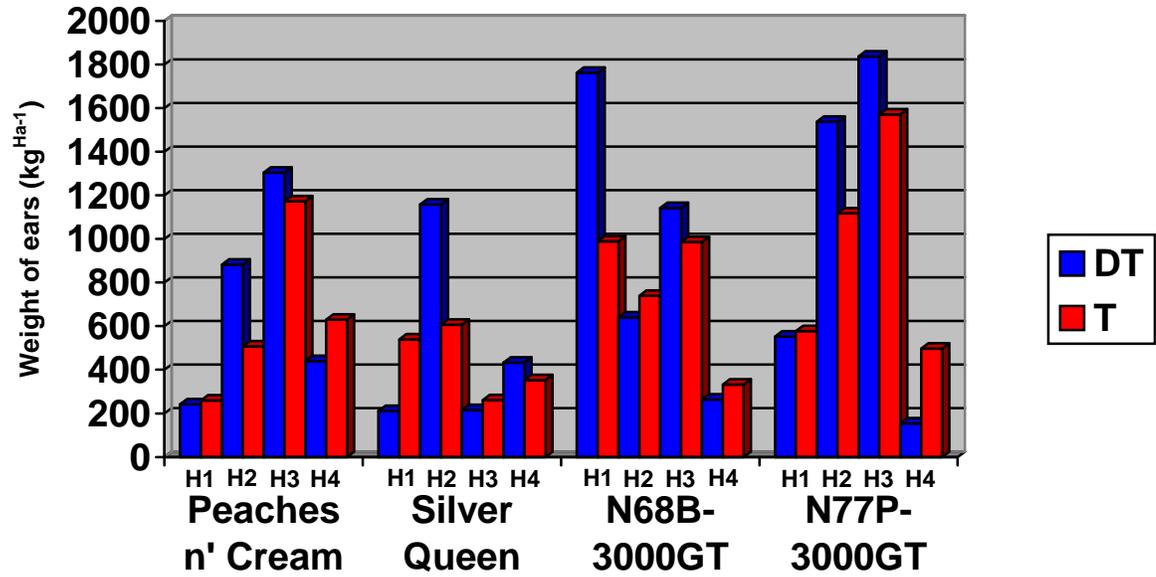


Fig. 3. Baby corn yields for detasseled (DT) and tasseled (T) cultivars over four harvests at Bowling Green, Kentucky (2011). See Table 2 for numerical values and statistical differences.

Table 4. Average lengths (cm) of husked baby corn ears in detasseled (DT) and tasseled (T) treatments by harvests and cultivars at Bowling Green, Kentucky (2011).¹

Cultivar	Harvest 1			Harvest 2			Harvest 3			Harvest 4			Cultivar averages ¹		
	DT	T	DT-T	DT	T	DT-T									
Peaches n' Cream	9.7	9.7	0	12.3	12.5	-0.2	12.9	14.7	-1.8	10.3	11.0	-0.7	11.3	12.0	-0.7
Silver Queen	11.3	10.2	1.1	10.6	9	0.7	8.4	8.5	-0.1	8.7	8.9	-0.2	9.8	9.1	0.7
N68B-3000GT	12.0	11.6	0.4	11.7	11.9	-0.2	12.1	12.6	-0.5	10.6	10.3	0.3	11.6	11.6	0
N77P-3000GT	11.0	11.1	-0.1	11.6	11.8	-0.2	12.9	12.7	0.2	10.8	11.8	-1.0	11.6	11.8	-0.2
Harvest averages	11.0	10.6	0.4	11.5	11.3	0.2	11.6	12.1	-0.5	10.1	10.5	-0.4	11.0	11.1	-0.1

¹ There were no significant differences at the 0.05 level of probability in husked ear lengths among harvests or among cultivars.

Table 5. Linear correlation coefficients (r) among baby corn yield variables by harvests and cultivars at Bowling Green, Kentucky (2011).

<u>Harvest</u>	<u>Number of ears vs.</u> <u>Husked ear weight</u>		<u>Husked ear length vs.</u> <u>Husked ear weight</u>	
	<u>DT</u>	<u>T</u>	<u>DT</u>	<u>T</u>
1	.887**	.910**	.687**	.771**
2	.924**	.866**	.038 ^{ns}	.215 ^{ns}
3	.861**	.864**	.918**	.815**
4	.968**	.751**	-.463 ^{ns}	.672*
<u>Cultivar</u>				
Peaches n' Cream	.777**	.517 ^{ns}	.931**	.904**
Silver Queen	.938**	.907**	.563*	.185 ^{ns}
N68B-3000 GT	.907**	.927**	.549 ^{ns}	.715**
N77P-3000 GT	.963**	.887**	.624*	.701**

¹ n.s., *, and ** indicate non-significant, significant at the 0.05, and 0.01 levels; respectively.

CHAPTER 5

DISCUSSION

The main objective of this study was to further understand the impact of detasseling on BC production. Overall, detasseling resulted in a significant increase in number of ears (11%) and weight of ears (14%). However, the effect was not consistent over harvests or cultivars. In a previous (unpublished) study conducted in 2010 and including basically the same materials and methods, detasseling resulted in an overall increase in BC production and it too gave inconsistent results for harvests and cultivars. Several researchers (Aekatasanawan et al., 1994; Grogan 1956; Duncan et al., 1967; Hunter et al., 1969) have reported increased yield in BC or field corn following detasseling. However, the explanations for varied responses range from weather, soil condition, and plant competition. Also, it has been suggested that the enhanced ear yields were due to within plant competition for nutrients between the tassel and ear or that removal of tassels reduces light interception.

Part of the explanation for inconsistency in detecting the detasseling effect may indicate that the mechanism is at a low level requiring more replication for detection. Support for this question is based upon the observation in the present study that the regular analysis of variance procedure failed to detect differences in some comparisons, whereas a more sensitive comparison revealed differences. Pairing DT and T treatments within each cultivar resulted in detection of DT-T differences for some harvests and cultivars that were not detected with the traditional randomized complete block analysis.

A further interest in this study was to compare cultivars including field and sweet corn for BC production. For numbers and weights, there were no consistent differences between sweet and field corn cultivar comparisons within or across harvests. For length of ears there were no significant differences among harvests or cultivars either for sweet or field corns. Cultivars did not differ per se for BC production. However, related traits were observed. The sweet corns produced few, if any, brace roots and were more susceptible to wind damage. Sweet corn husks were less tightly rolled and, consequently easier to remove. Sweet corn plants were shorter and easier to detassel. For the cultivars studied, the attempted seeding rate was 135,000^{ha⁻¹}; average plants per hectare were 134,600 and 114,032 for the field and sweet corns; respectively. It was not known whether the difference was due to inherent germination or emergence characteristics or due to planting methods.

Future research on BC should include provisions for extending the period of productivity. Galinat and Bor-Yaw (1988) described two systems for BC production. In the single purpose system where BC production is the only objective, successive plantings could spread the harvests. Results of the present study indicated that bi-weekly plantings with twice weekly harvests could supply a continuous supply of high quality BC over the growing season. The dual system in which both BC and other corn are produced by the same planting could extend the BC harvest period provided that BC was harvested as first ear in one portion of the planting giving earlier ears and was harvested on second ears in another portion of the planting giving later ears. Wang et al. (2010) successfully utilized the dual system to get earlier BC ears, but did not include the sequence to get later ears.

Ease of processing is being pursued by geneticists through their efforts to develop silkless BC cultivars. The Thailand industry has developed a forced-air system for removal of silks (RAP Market Information Bulletin NO. 5). According to published results and experience of the present study, sweet corn, especially Peaches n' Cream, husks and silks were held less tightly to the ear permitting greater ease in removal. For smaller, local markets, consumers prefer that husks be left on maintaining freshness for a longer period. However, larger and international markets require prior husking and silking.

These results are based upon biological yield rather than marketable yields. Two main factors contributed to the frequency of culls. First was the length, which averaged 11.0 cm for all harvests and cultivars (Table 4) and exceeded the 10 cm length considered as standard for fresh markets. Results reported by Bar-Zur and Saadi (1990) indicated that BC ear length increased between silking and 4 days after silking. It is possible that the increasing harvesting frequency from two to three times weekly would reduce the length. The second factor resulted in cull ears was associated with moisture stress that occurred in later harvest. Underdeveloped ears and sections of ears detracted from BC ear appearance (Fig. 4). Providing adequate moisture through irrigation would likely reduce ear deformities.



Fig. 4. Illustration of marketable ears (above) in early harvests and non-marketable ears (below) in late harvests of baby corn observed for all cultivars in 2011 study.

CHAPTER 6

SUMMARY

Baby corn (*Zea mays* L.) consists of unfertilized young ears harvested at silk emergence. The 2011 study was a culmination of four successive years of production and evaluation of baby corn at Western Kentucky University (36.93 N, 86.47 W). The primary objective was to compare the effect of tassel removal on baby corn (BC) production on four cultivars of corn, two field ('N77P-3000GT', 'N68B-3000GT') and two sweet ('Silver Queen', 'Peaches N Cream'). Results indicated that tassel removal gave significant increases ($P < 0.01$) of BC ears across harvests (H) and cultivars; however, the effect was not consistent over treatments. For harvests, the difference due to detasseling was significant ($P < 0.05$) for H2 and H3, but not significant ($P > 0.05$) for H1 or H4. For cultivars, numerical values were higher for detasseled than non-detasseled treatments in the first three harvests for each cultivar, but significant ($P < 0.05$) only for Peaches n' Cream. Quality of BC from both tassel treatments decreased in H3 and H4. Based upon the increased number of ears resulting from detasseling, additional labor cost would be more than covered. A further interest in this study was to compare cultivars including field and sweet corn for BC production. For numbers and weights, there were no consistent differences between sweet and field corn cultivar comparisons within or across harvests. Baby corn has excellent potential as a niche crop for producers and consumers in Central Kentucky.

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