Introduction

Out of the over 33 different vegetables produced in Georgia, watermelon is one of the most important, both in terms of acreage and farm gate value. In 2004, watermelon ranked 1st in total planted acres, representing 15% of total Georgia crop acreage, equivalent to 29,450 acres. It also ranked 3rd in terms of farm gate value generating over $85 million, equivalent to 11.8% of $725 million total vegetable farm gate value according to the 2004 Georgia Farm Gate Value Report (2004).

Watermelons have a long history in Georgia. The principal objective of this study is to unravel the historical perspective of this important crop. Specific objectives include: (1) to analyze production trend, focusing on planted and harvested acreage, and (2) to analyze seasonal price trend and value.

Acres Planted, Area Harvested and Yield

For the past thirteen years, the highest planted and harvested area was recorded in 1992 (Fig. 1). Since then, planted and harvested areas have been fluctuating and downward trending. The lowest year was 2001 when only 24,000 acres were planted and 22,000 acres harvested. Comparatively, the lowest yield was recorded in 1993 when only 140 cwt per acre was produced compared with the highest of 265 cwt per acre in 2001 (Fig. 1).

Further analysis covering 1960 to 1981 shows a different trend. Although the overall planted area was higher than in the 1990s, the highest planted area was lower in the 1980s than in the 1990 to 2000 era. For instance, the highest planted area of 40,000 acres each was recorded in 1968 and 1969 respectively. However, the harvested areas for the same time period were 39,500 and 37,500 acres respectively (Fig 2).

The yield trend was much lower in the 60s – 80s compared to the 90s to 2000 era. Fig. 2 shows that the highest and lowest yields in this era were in 1981 and 1972. Although there might be other reasons affecting the yield, one logical reason could be new technology and improved agricultural practices.

The situation gets more complicated as we go further down to the 1930s when commercial vegetable production estimates actually began. Initially, planted acreage
Figure 1: Georgia Watermelon: Area Planted, Harvested and Yield, 1992-2004


data was not available prior to 1946. Also, production reports prior to 1949 were all reported under melons and there was no conversion (Fig 3). Despite all that, planted and harvested acreage was highest from the 30s to the 50s. The highest ever harvested was 66,000 acres in 1940. At the time, there was no data for planted

Figure 2: Georgia Watermelon: Area Planted, Harvested and Yield: 1960-1981

acreage. As a matter of fact, harvested areas were over 60,000 acres from 1939 to 1941 (Fig. 3). The data also reveals that the same 60,000 acres were planted and harvested in 1947 and 1954 respectively.

**Figure 3: Georgia Watermelon: Area Planted, Harvested and Yield: 1939-1959**

On the other hand, yield from 1939 to 1948 were good and comparable to yields from 1992 to 2004. The best yield from the 30s to the 50s was 343 cwt per acre and was in 1943. From 1949, the yields plummeted drastically to 78 cwt per acre and remained almost constant for over two decades (Fig 3). Although it is difficult to tell why such a drastic fall in yields occurred, an educated guess might be the outbreak of pest and diseases.

**Total Production and Seasonal Average Price Trend**

Total production from 1992 to 2004 show that the best production was recorded in 1995. Since then, it took a downward trend until 2001 when it started rising again. The lowest production was in 2004 when Georgia watermelon growers suffered from multiple tropical storms and hurricanes which affected the farms (Fig. 4). Seasonal average price from 1992-2004 started as low as $3.65 per cwt in 1992 to as high as $7.00 per cwt in 2004.

The total production and seasonal average price from 1960 to 1981 shows that the best production was in 1968 when 3.6 million cwt was produced. Since then, production has been inconsistent. Total seasonal average price per cwt has been gradually on the rise with a peak of $6.04 in 1980 (Fig. 5).
Figure 4: Georgia Watermelon: Total Production and Seasonal Average Price, 1992-2004

![Graph showing Georgia Watermelon production and seasonal average price from 1992 to 2004.](image)


Figure 5: Georgia Watermelon: Total Production and Seasonal Average Price, 1960-1981

![Graph showing Georgia Watermelon production and seasonal average price from 1960 to 1981.](image)


Furthermore, there was a slight difference in the price and production dynamics from 1939 to 1958 (Fig. 6). Although production was inconsistent, it was a lot higher from 1939 to 1948 compared to 1949 to 1958 when it dropped to 3.0 million cwt levels. Average seasonal price followed similar trend, i.e., it went as high as $4.4 per cwt in 1946 (Fig.6).
Figure 6: Georgia Watermelon: Total Production and Seasonal Average Price, 1939-1958

![Graph showing total production and seasonal average price of Georgia watermelons from 1939 to 1958.]


Farm Gate Value

Georgia Agricultural Statistics Service (GASS) has been collecting this data since 1939. A comparison of the Center for Agribusiness and Economic Development (CAED) farm gate value from 1999-2004, shows that there is a discrepancy between the GASS data as compared to the CAED data (Fig. 7). The data from the CAED shows that the highest farm gate value for watermelon was $94.8 million in 2002 whereas the highest reported by GASS was $41.9 million in 2003 (Fig. 7).

Figure 7: Watermelon Farm Gate Value: Georgia Agricultural Statistics Service vs Center for Agribusiness and Economic Development Data: 1999-2004.

![Graph showing comparison of watermelon farm gate value between GASS and CAED from 1999 to 2004.]

Conclusion

Out of the over 33 different vegetables produced in Georgia, watermelon is one of the most important, both in terms of acreage and farm gate value. In 2004, watermelon ranked 1st in total planted acres and 3rd in terms of farm gate value. The Georgia Agricultural Statistics Service started collecting commercial watermelon data in 1930. Planted acreage data was not available prior to 1946. Also, production reports prior to 1949 were all reported under melons and there was no conversion.

Despite all that, planted and harvested acreage was highest from the 30s to the 50s. The highest ever harvested area was 66,000 acres in 1940. As a matter of fact, harvested areas were over 60,000 acres from 1939 to 1941. The data also reveals that the same 60,000 acres were planted and harvest in 1947 and 1954 respectively.

Further analysis of the 1960 to 1981 time period shows that although the overall planted area was higher than in the 1990s, the highest planted area was lower in the 1980s than in the 1990 to 2000 era. Georgia Agricultural Statistics Service (GASS) has been collecting this data since 1939. A comparison of the Centre for Agribusiness and Economic Development (CAED) farm gate value from 1999-2004 show that there is a discrepancy between the GASS data as compared to the CAED data.

References
