

# Survey to identify key issues in accepting new HLB tolerant hybrids as new commercial cultivars for fresh and processed citrus

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## Introduction:

Citrus is the most economically important fruit tree crop in Florida, contributing to employment and providing cultural context for many generations of growers. Unfortunately, huanglongbing (HLB) is devastating the Florida citrus industry and is a serious threat to other citrus-growing states. There is a need to identify HLB-tolerant scion genotypes acceptable for fresh fruit and juice varieties (either alone or in blends for juice) that allow profitable citrus production. Florida law requires that orange juice be comprised of at least 90% sweet orange juice. Given the poor growth, cropping, and reduced fruit quality common in HLB-affected sweet orange, the Florida juice industry is reconsidering this restriction. Transitioning to different cultivars with greater HLB-tolerance and ultimately -resistance is critical to a sustainable Florida citrus juice industry, especially if orange-like and grapefruit-like juice, already demanded by consumers, can be maintained.

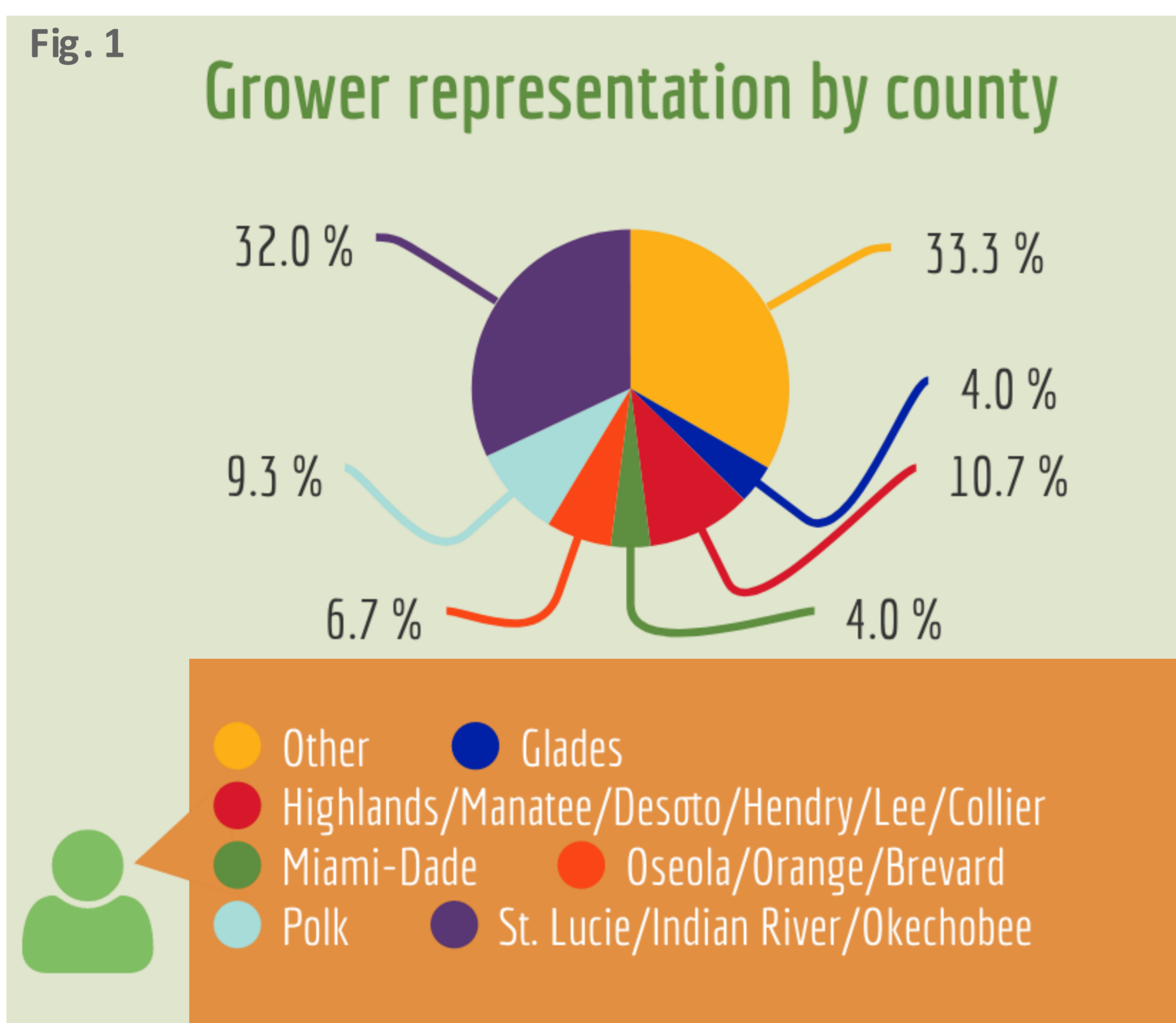
## Objectives:

We surveyed growers and processors at the Florida Citrus Show in 2019 and 2020 to identify key issues in new hybrid acceptance.

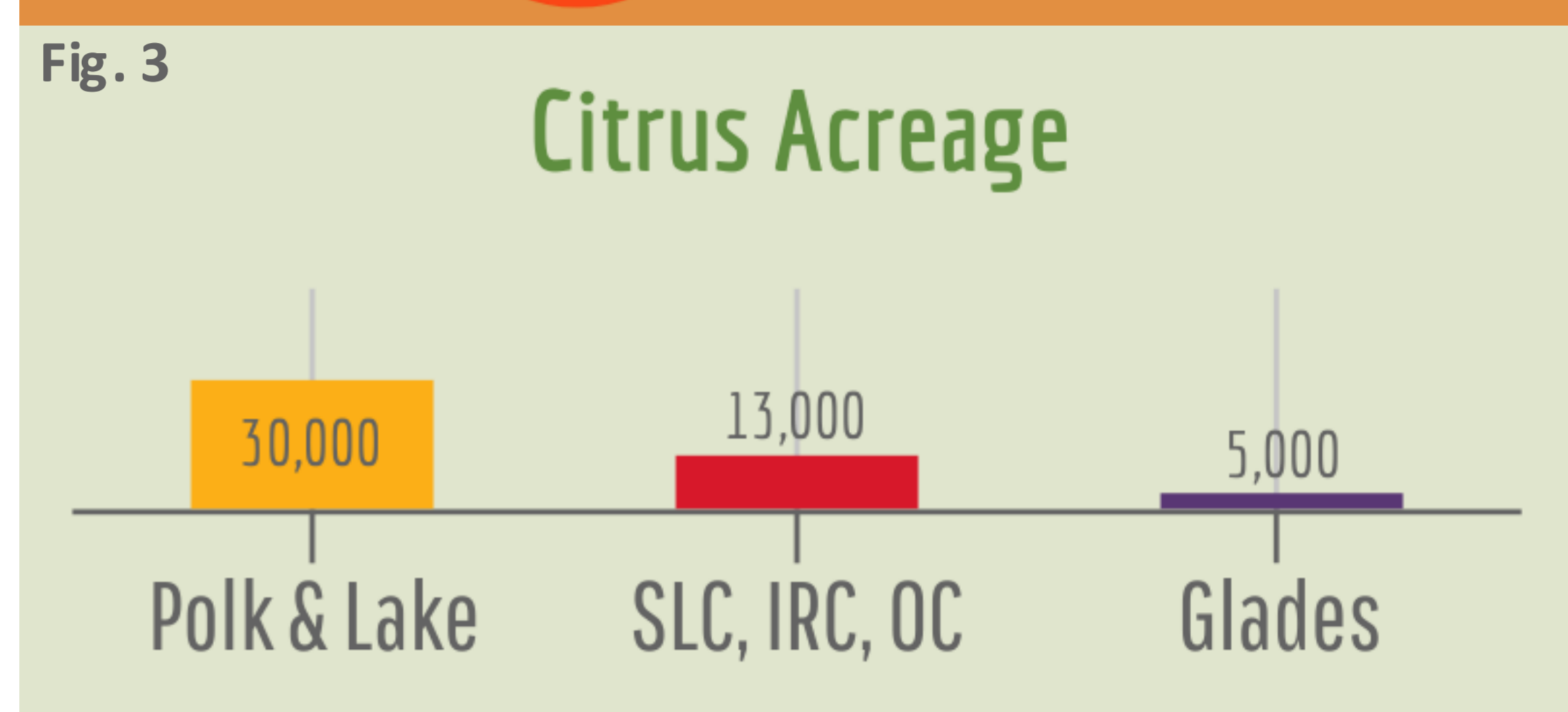
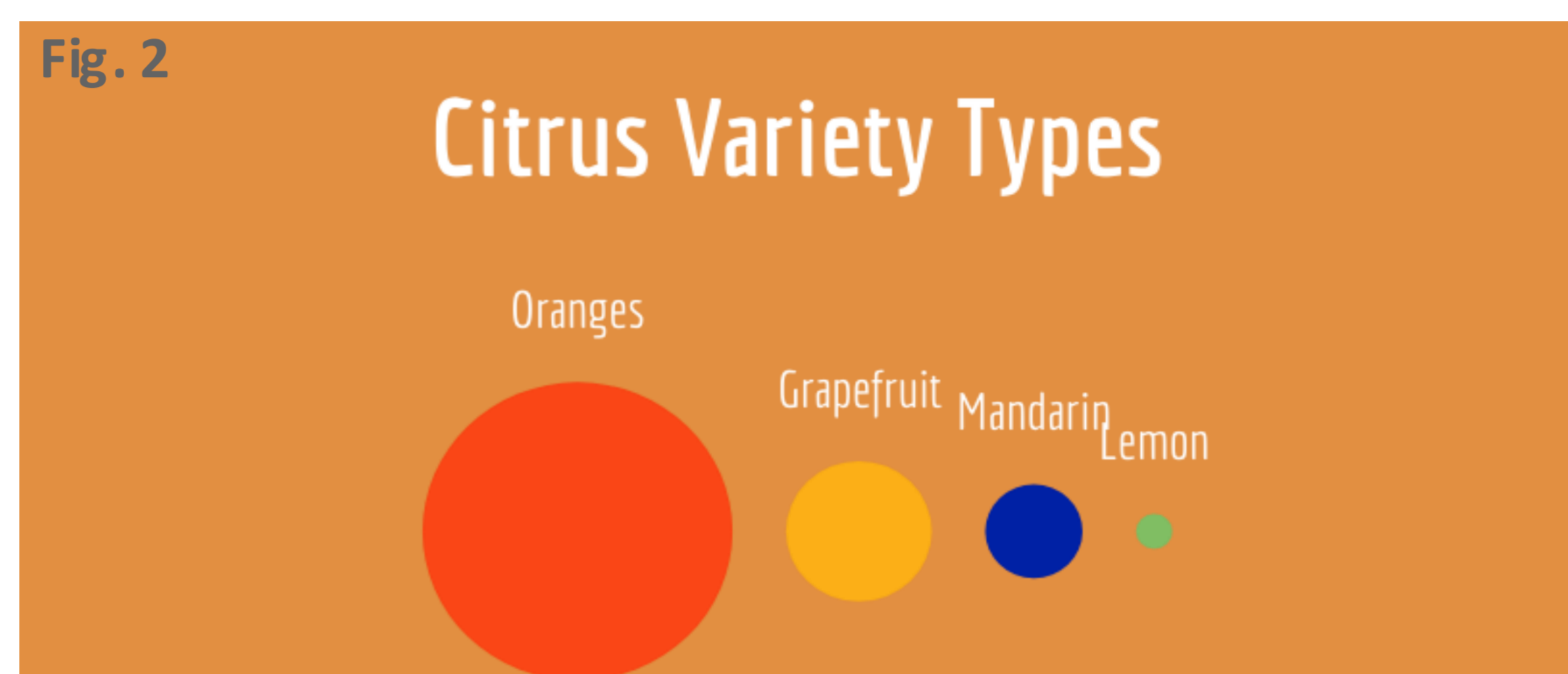
## Materials & Methods:

Survey data was tabulated as percentage of respondents in each category. A total of 42 growers and 25 consumers were surveyed in 2019 and 2020.

## Results & Discussion:



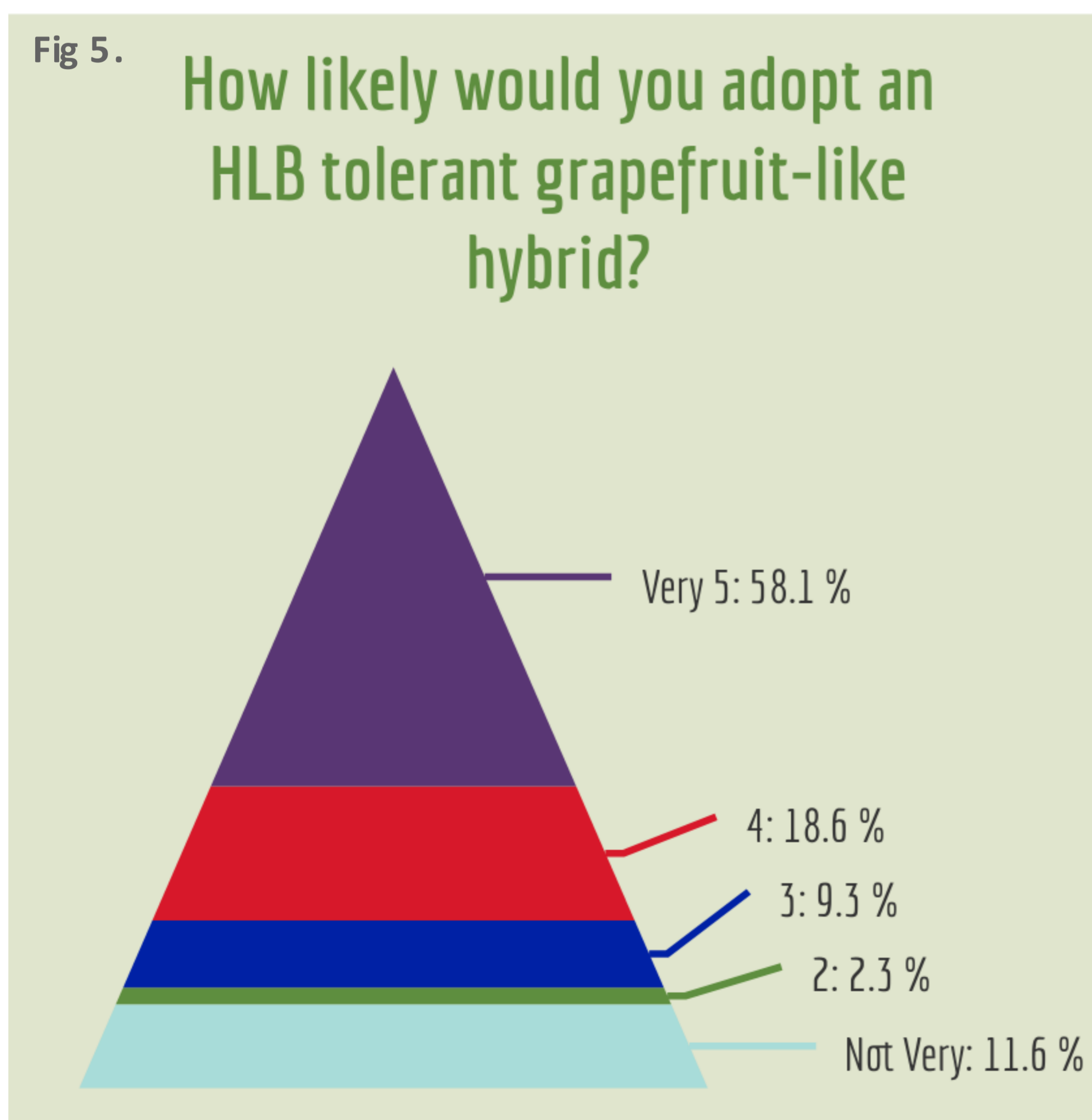
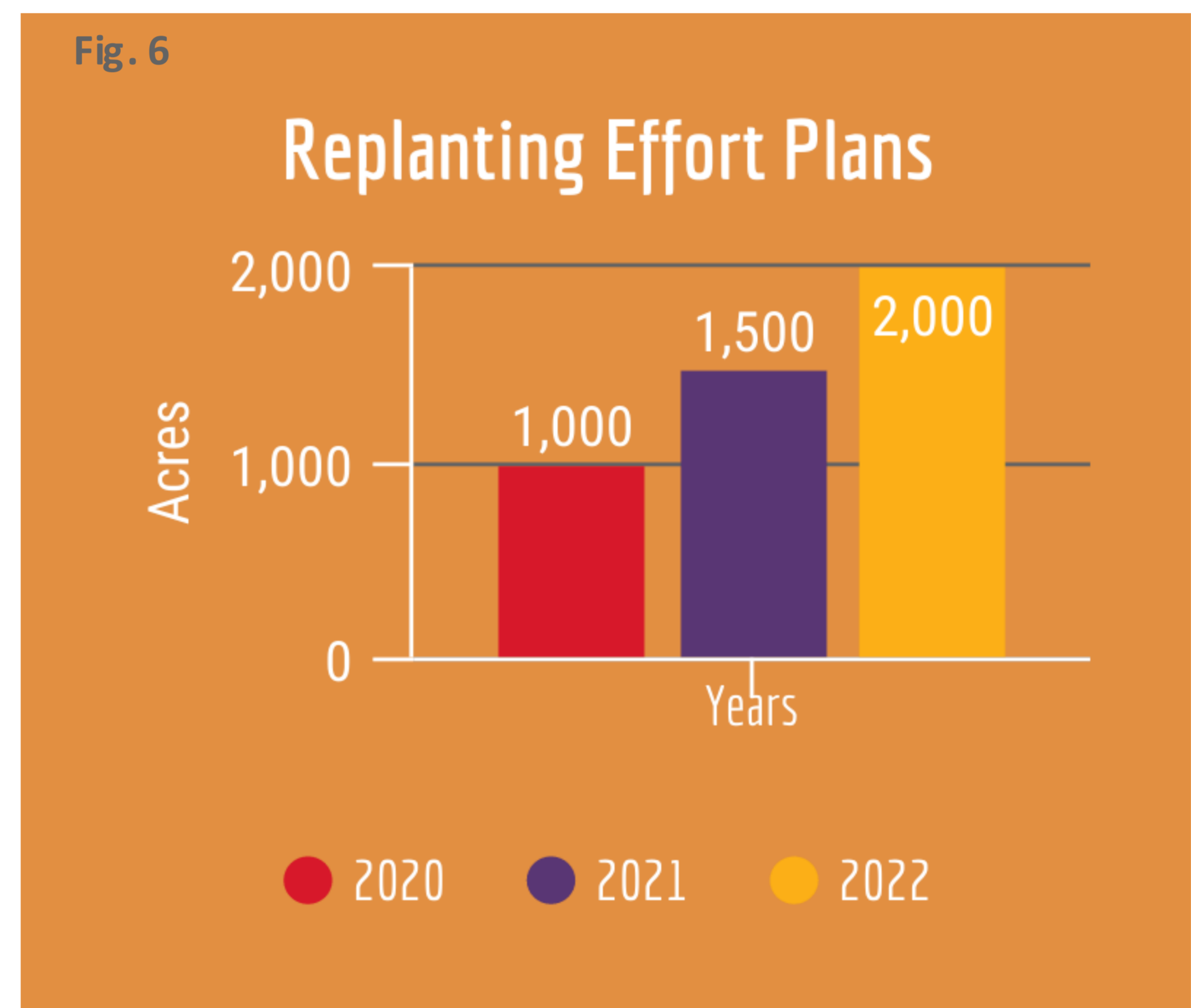
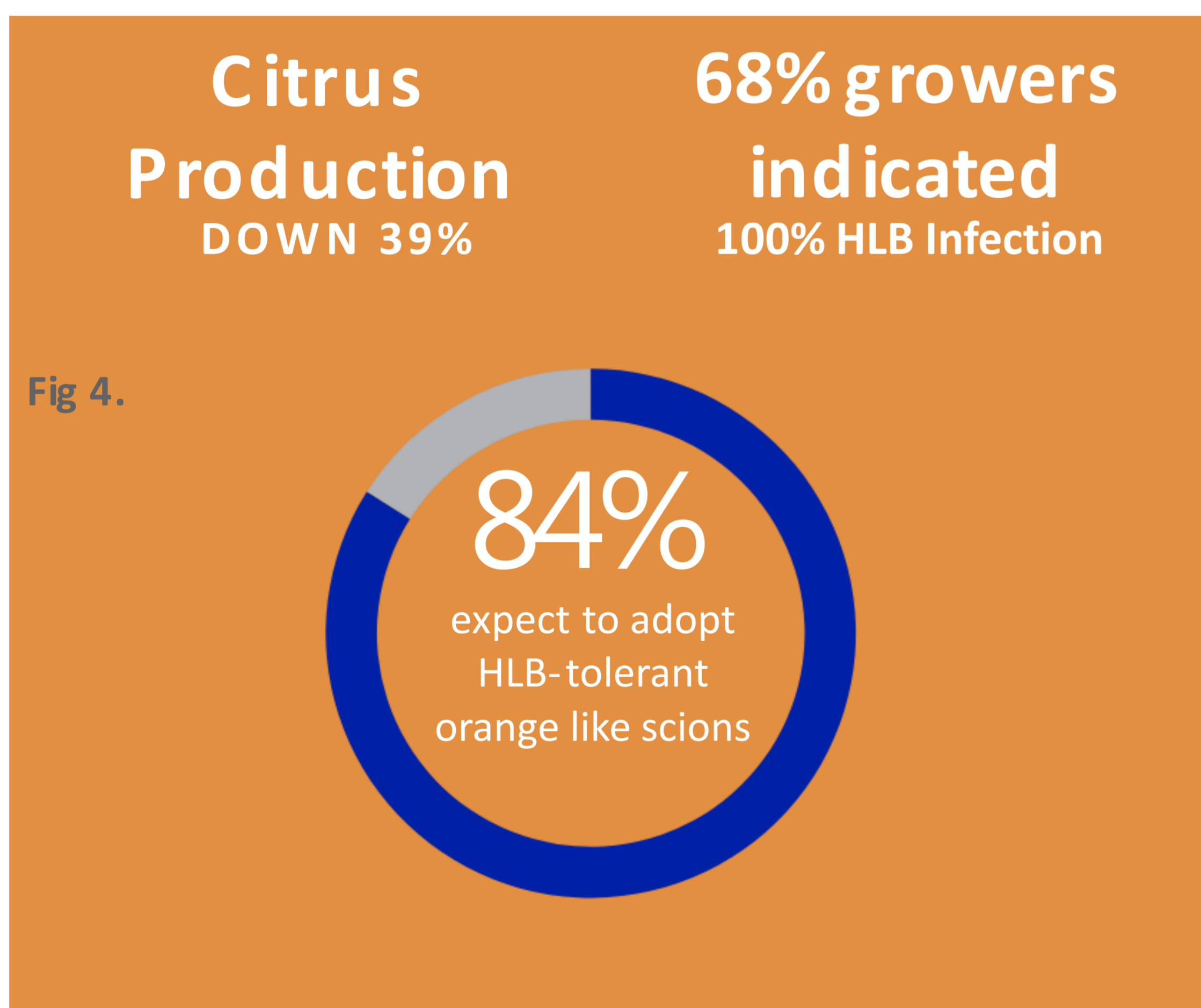
Participants were dispersed throughout the state: St. Lucie County represented 19%, follow by Highlands, Manatee, Desoto, Hendry, Lee, and Collier counties at ~ 12% each and Polk county at 7%. Polk and Highlands counties ranked 1st for reported acreage. 57% of participating were production and/or farm managers (Fig. 1).



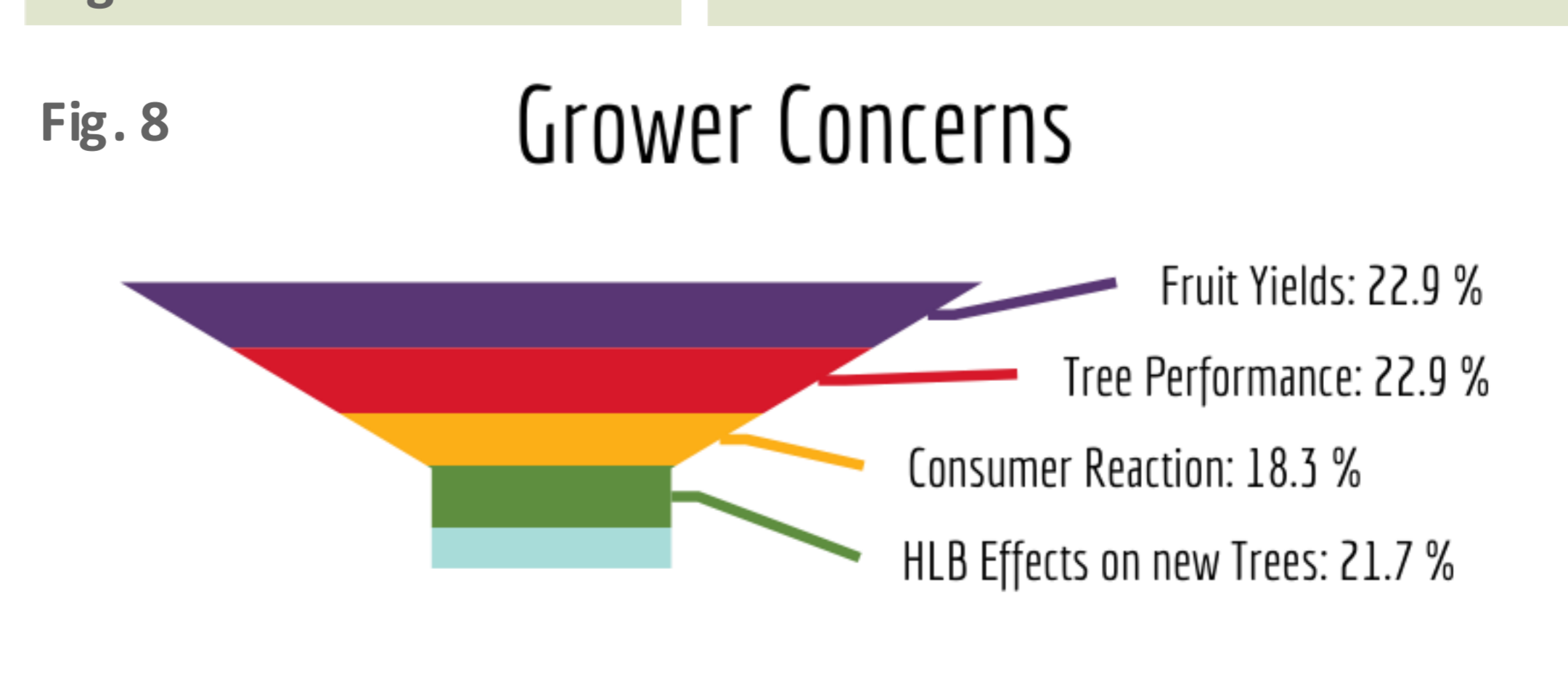
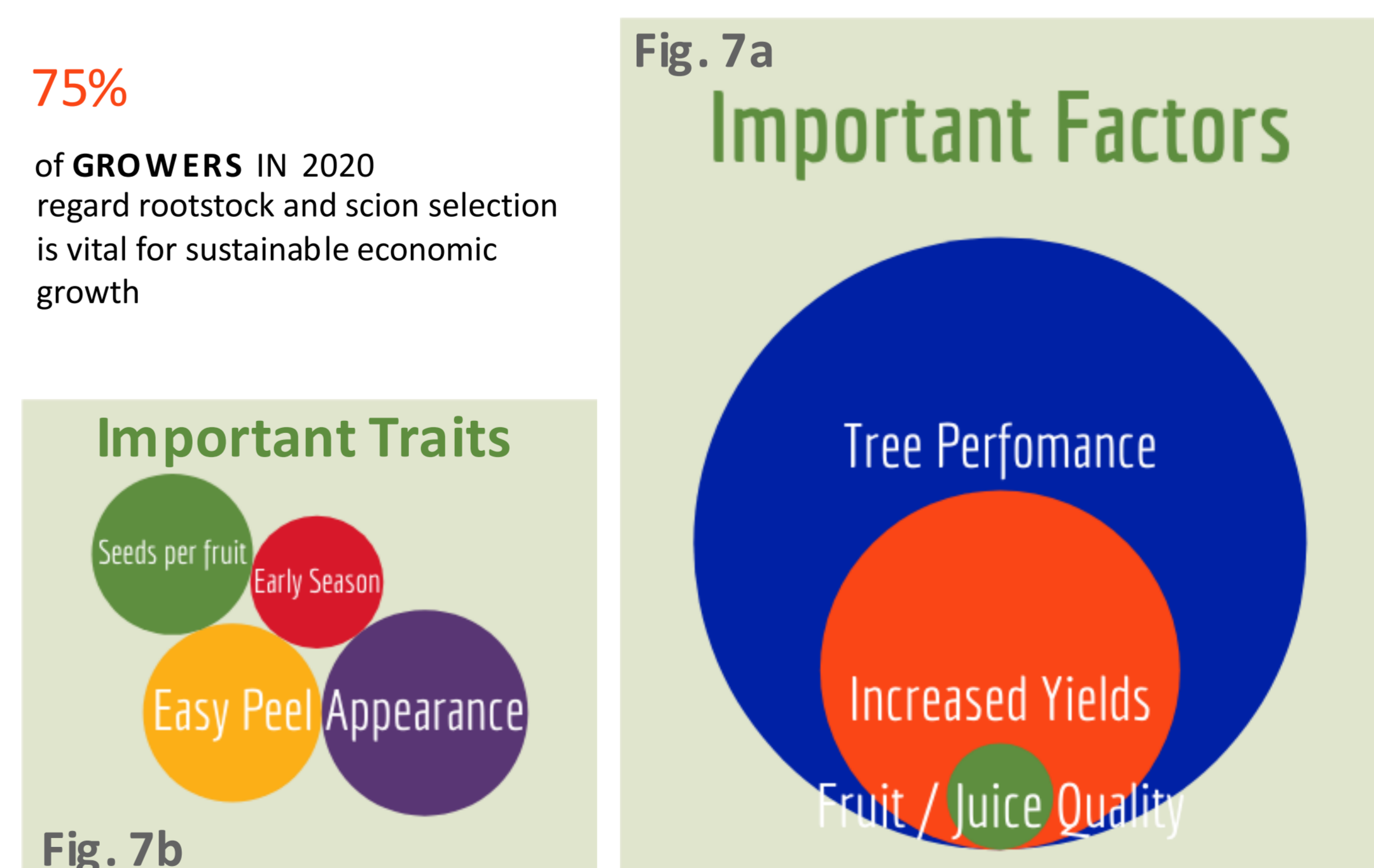
**Citrus Variety Types:** Oranges ranked first of citrus varieties planted at 51% of their acreage, followed by grapefruit at 24%, and mandarins at 11%. (Fig. 2)

**Citrus Acreage:** Polk and Highlands counties ranked 1st for reported citrus acreage represented in the survey. (Fig. 3)

## Growers Rate the Importance



**HLB Tolerance Adaptations:** 84% of growers expect to adopt HLB-tolerant orange-like scions and 58% would plant HLB-tolerant grapefruit-like scions (Fig. 4 & 5). **Replanting Efforts:** Growers reported replanting plans for +5,000 acres in the next years (Fig. 6)



**Important Factors/Traits:** Confidence in tree performance ranked highest in importance for decision to plant new HLB-tolerant hybrids as reported by 73% of growers, sustainability practices trailed at 72%, with increased fruit and juice quality third at 67%. (Fig. 7a & 7b).

**Grower Concerns:** Growers are most concerned with fruit yields & tree performance (Fig. 8)

## Conclusion:

We enhanced grower awareness to facilitate acceptance of alternative juice products and fresh citrus that can be sustainably produced in the presence of endemic HLB.

## Acknowledgements:

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