



UNIVERSITY OF GEORGIA
EXTENSION

THE BEES' NEEDS:

Surveying Commercial Beekeepers in South Georgia

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BACKGROUND

Historically low response rates from Georgia's commercial beekeepers in national beekeeping surveys may be a gap in important data. Between 2015 and 2020, the Bee Informed Partnership (BIP) Management Survey collected only 20 responses from commercial beekeepers in Georgia.

There are over 350 reported beekeepers in South Georgia. This gap is significant as commercial beekeepers manage the majority of colonies in the United States and experience greater financial impact as a result of colony loss.

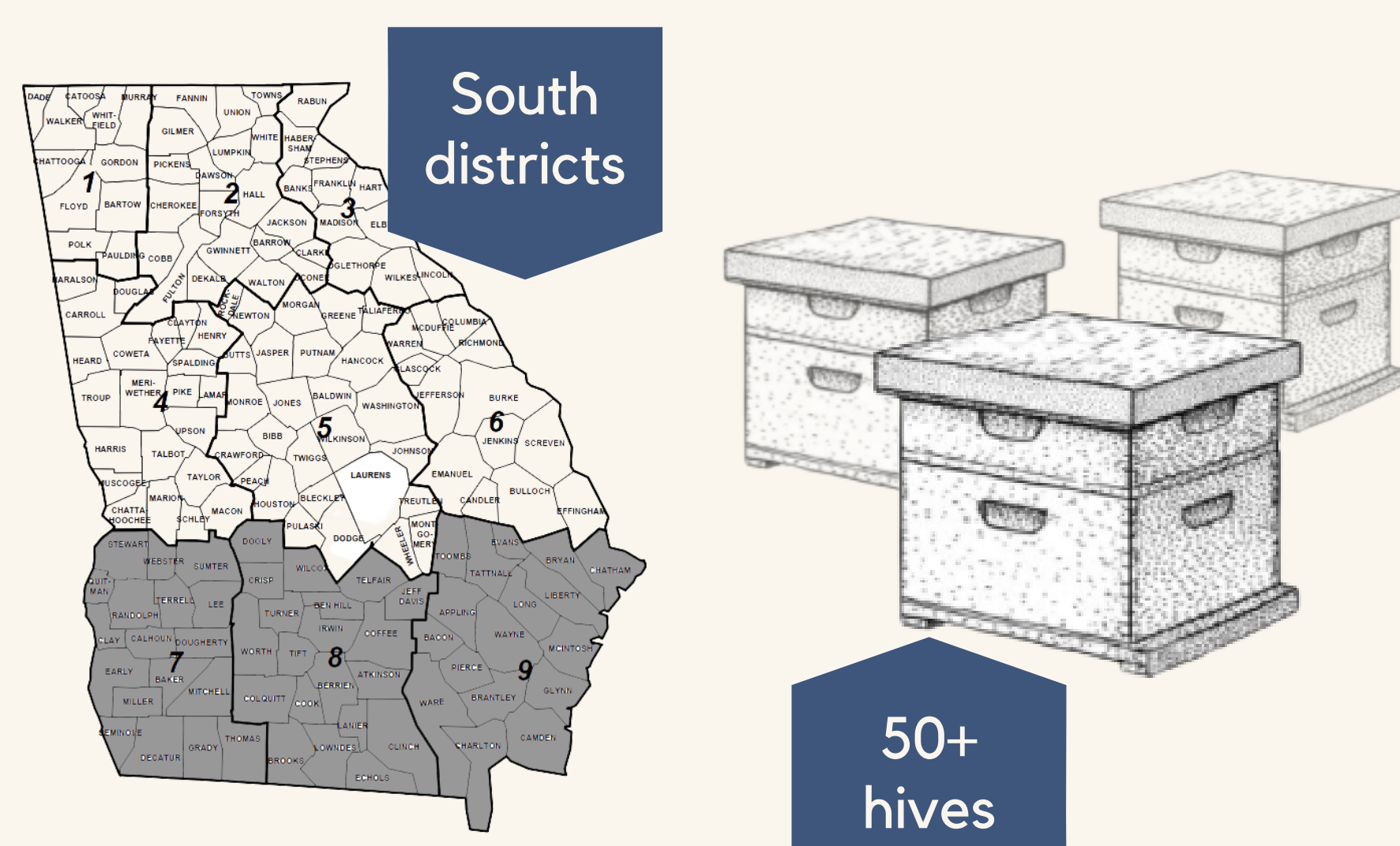
Gaining a better understanding of which issues are a personal concern for beekeepers could provide insight for local Agriculture & Natural Resources (ANR) programming needs.

METHODS

The ANR Agent developed a survey for delivery to beekeepers that met the following criteria:

- Maintained hives in the Southwest, South Central, or Southeast USDA agricultural districts of Georgia (shaded below)
- Operated 50+ hives
- Legal adult

The survey was delivered in-person at beekeeping meetings and online via Qualtrics.



RESULTS

A total of 61 surveys were initiated from commercial beekeepers across the United States, with 33 meeting the target criteria. The majority of respondents indicated they operate 1,001 to 5,000 hives (Figure 1). Varroa mites were perceived as the most impactful factor affecting bee health, followed by pesticides alone pesticides combined with adjuvants (Figure 2).

Figure 1. Number of colonies operated by respondents in South Georgia (n=33).

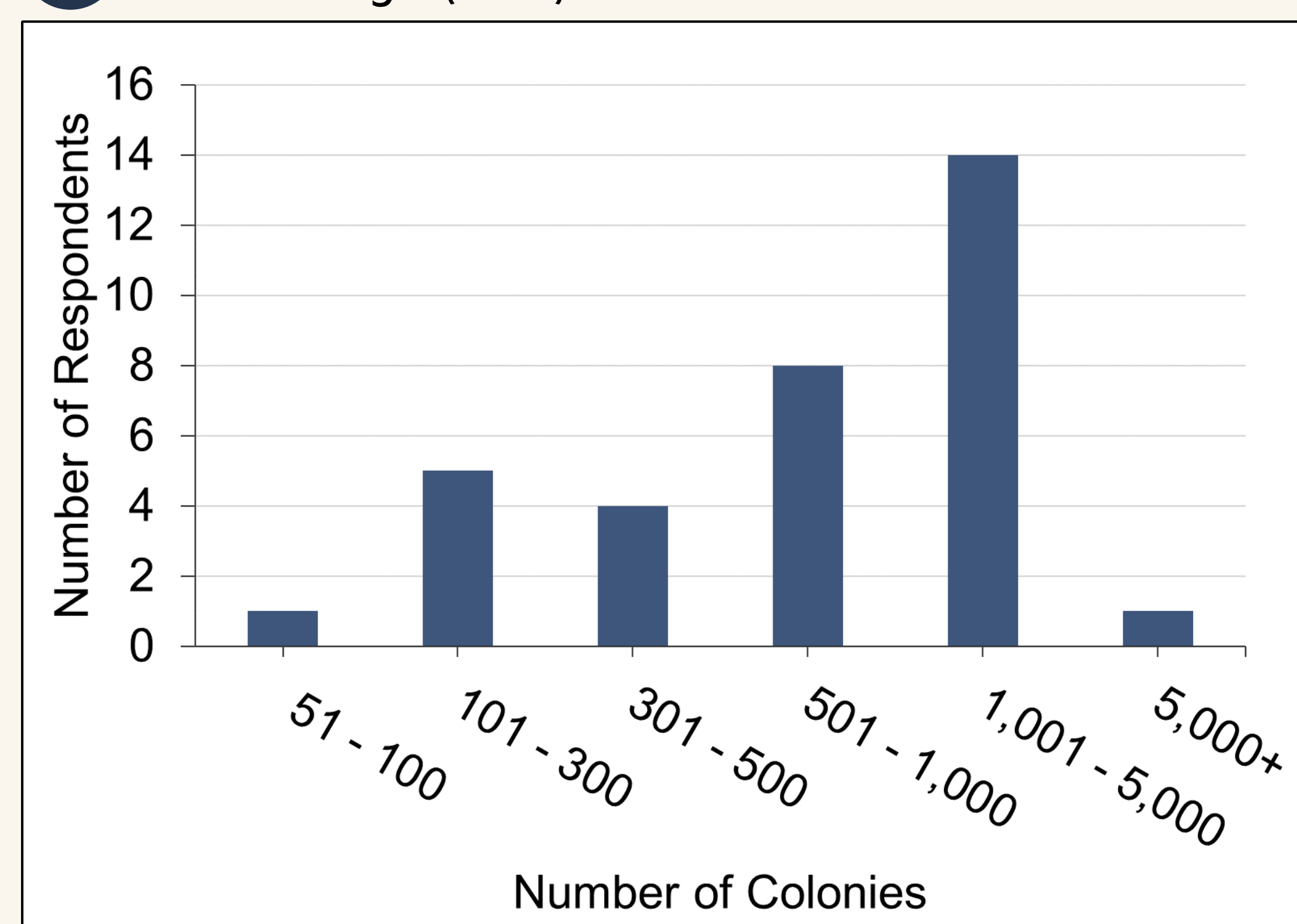
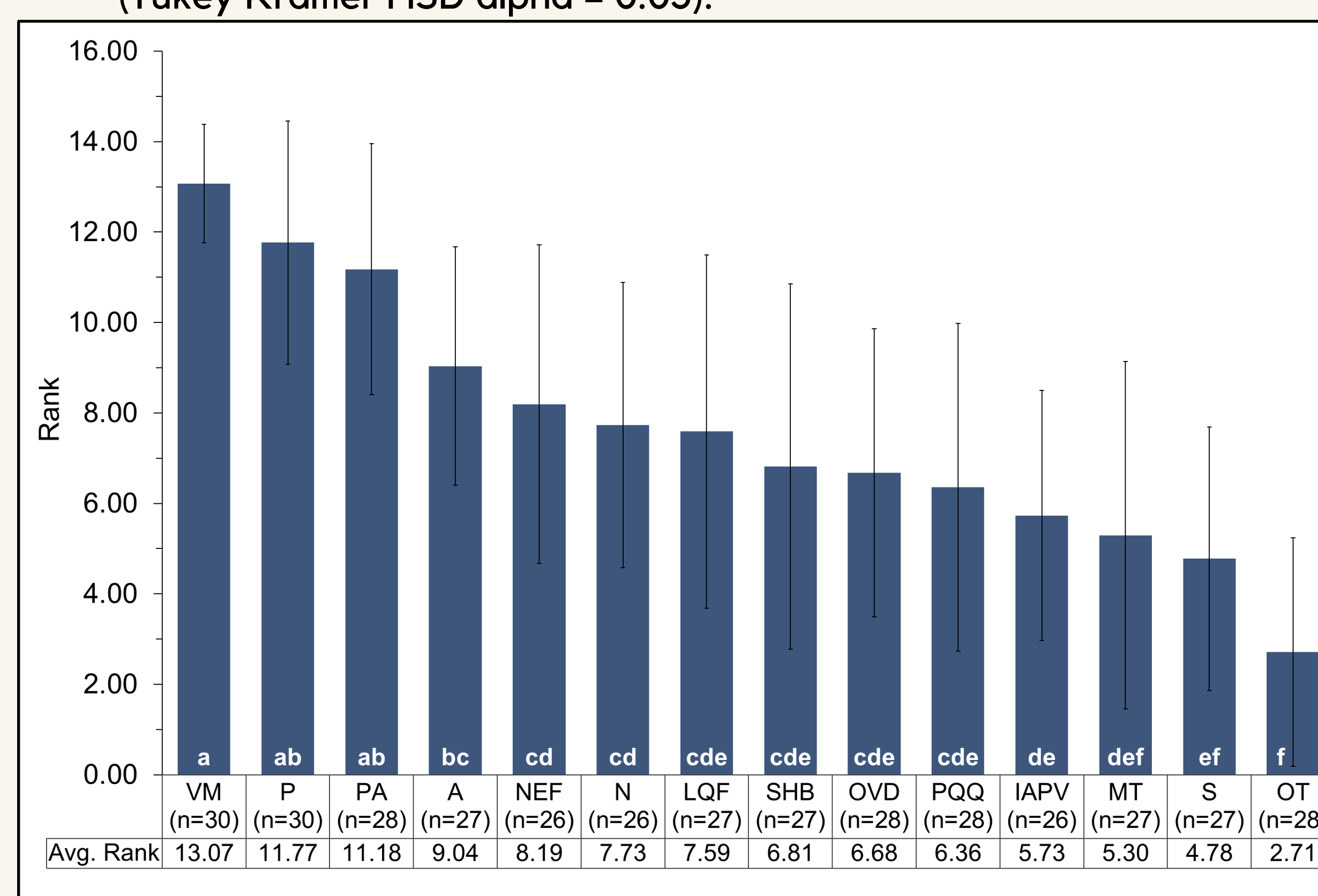


Figure 2. Average ranking ($\pm$ SD) of perceived impact of factors affecting bee health. Maximum rank with greatest impact is 14. Factors with different letters indicate significant difference in ranking (Tukey Kramer HSD alpha = 0.05).



Key: Varroa mites (VM), Pesticides alone (P), Pesticides and Adjuvants acting together (PA), Adjuvants alone (A), Not enough forage/ habitat (NEF), Nosema (N), Low quality forage/ habitat (LQF), Small hive beetle (SHB), Other viruses and diseases (OVD), Poor queen quality (PQQ), Israeli Acute Paralysis Virus (IAPV), Mite treatments (MT), Stress from hauling/ relocation (S), Other bee medications/ treatments (OT).

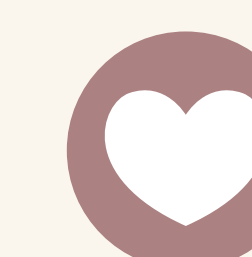
IMPACTS



Results confirm that Varroa is perceived as a leading and major cause of bee health issues, according to commercial beekeepers in South Georgia.



Online distribution via Qualtrics created a valuable avenue for responses to be submitted. This one-year survey collected data from 33 commercial beekeepers operating over 25,000 colonies in South Georgia, a 65% increase over national surveys in a five-year period.



Such was a response was possible due to the unique connections that Extension forges between county agents and the agricultural producers we serve.

NEXT STEPS



Collecting additional survey responses in the future may help recognize unique beekeeper challenges that exist in South Georgia, as well as refine Extension programming efforts to better suit the needs of commercial beekeepers.



County Extension agents with dense populations of commercial beekeepers may consider promoting national management surveys to their producers to effectively capture data from large beekeepers.

ACKNOWLEDGEMENTS

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Much appreciation to Dr. Simer Virk for his assistance with running the statistics on the ranking data.

