



# Building an informed community of small ruminant producers through FAMACHA CERTIFICATION

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## EDUCATIONAL NEED

Small ruminant industries continue to attract new and small farmers in Florida. These producers often start off in sheep and goat production with little to no experience with livestock management, and research-based resources for small ruminants can be limited and difficult to find. Internal parasite management is inherently part of the job for sheep and goat producers, and these problems can be exacerbated by the Florida climate, posing a severe and unique challenge for producers in the state. FAMACHA scoring is a standardized, widely accepted practice to inform deworming programs, but there is little opportunity for Florida producers to become certified. Offering multiple FAMACHA trainings throughout the year beginning in 2022 has built up a community of small ruminant producers who are open to improving their operations through recommended practices and eager to interact with and learn from extension and other producers.

## OBJECTIVES

The following goals were set for this program:

- 75% of participants will increase their knowledge related to small ruminant management.
- 75% of participants will indicate adoption of recommended small ruminant management practices.
- 90% of participants will become FAMACHA certified.
- Connect small ruminant producers with each other for peer-to-peer learning opportunities.
- Build a community of small ruminant producers by maintaining communication and sharing of resources after participation in the program.

## METHODS

**Activities** Extension agents became certified to offer FAMACHA training to the public in early 2022. As a result, FAMACHA training courses were offered on the following dates:

- April 9th, 2022
- April 14th, 2023
- September 30th, 2023

The programs were held at the University of Florida Sheep Unit and included the completion of a video and exam ahead of the in-person, half-day workshop. The workshop started with a presentation and review of internal parasite management and control in small ruminants, including deworming protocols, products, and a question-and-answer session. The second half of the workshop is hands-on, and conducted in the barn with the use of the UF Florida native sheep flock. Participants are shown the procedure for conducting the FAMACHA score and using the FAMACHA card, and given the opportunity to practice on live animals with one-on-one guidance from instructors. All participants must correctly demonstrate the use of the FAMACHA card and procedure to successfully complete the course and become FAMACHA certified.

Continued communication with participants after completion of the training was critical for building trust and ensuring a line of contact for sharing resources and other programs and opportunities for education.

**Partnership** Recently, Extension efforts to reach small ruminant producers has increased; a statewide committee was initiated in 2021 to provide needed educational programming and resources for sheep and goat producers. The FAMACHA trainings compliment these efforts. The authors were able to collaborate with state faculty to offer FAMACHA training as part of the Small Ruminant Short Course, an annual two-day event.

**Materials** Additional resources were developed and dispersed as part of the FAMACHA classes, including several topical fact sheets. With completion of the course, participants receive a certification package including a certificate and the official FAMACHA card to use on their own operations (licensing for FAMACHA cards managed through Louisiana State University).



The FAMACHA card is a standardized guide to categorizing anemia in small ruminants by the color of the mucous membranes below the eye. The card is used for comparison to mucous membrane coloring to determine if treatment is necessary.



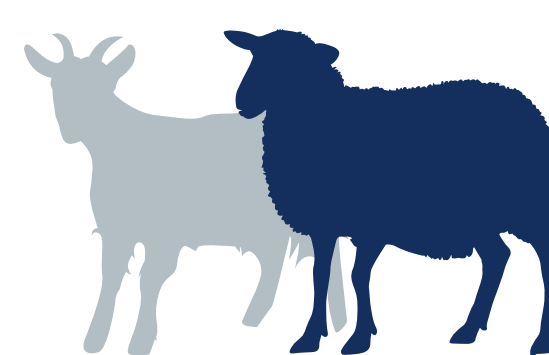
UF/IFAS Extension Agents lecture on deworming methods, internal parasites, and the importance of using the FAMACHA system (left). Biosecurity is essential for any sheep and goat operation, participants are briefed on the use of gloves and booties.



UF/IFAS Extension Agents demonstrate the FAMACHA procedure to producers at the University of Florida Sheep Unit (above).



The FAMACHA card provides a straightforward color system to help producers identify animals that are in need of deworming treatment (above). FAMACHA scoring is a useful tool, but should not be the only factor accounted for in a deworming program.



With the help of instructors and their fellow participants, producers worked in groups to demonstrate the use of the FAMACHA card and to finish the certification requirements (above).



## The Procedure

**1** Properly restrain the animal and gently press the upper eyelid with the thumb.



**2** Gently pull the lower lid to expose the mucous membrane.

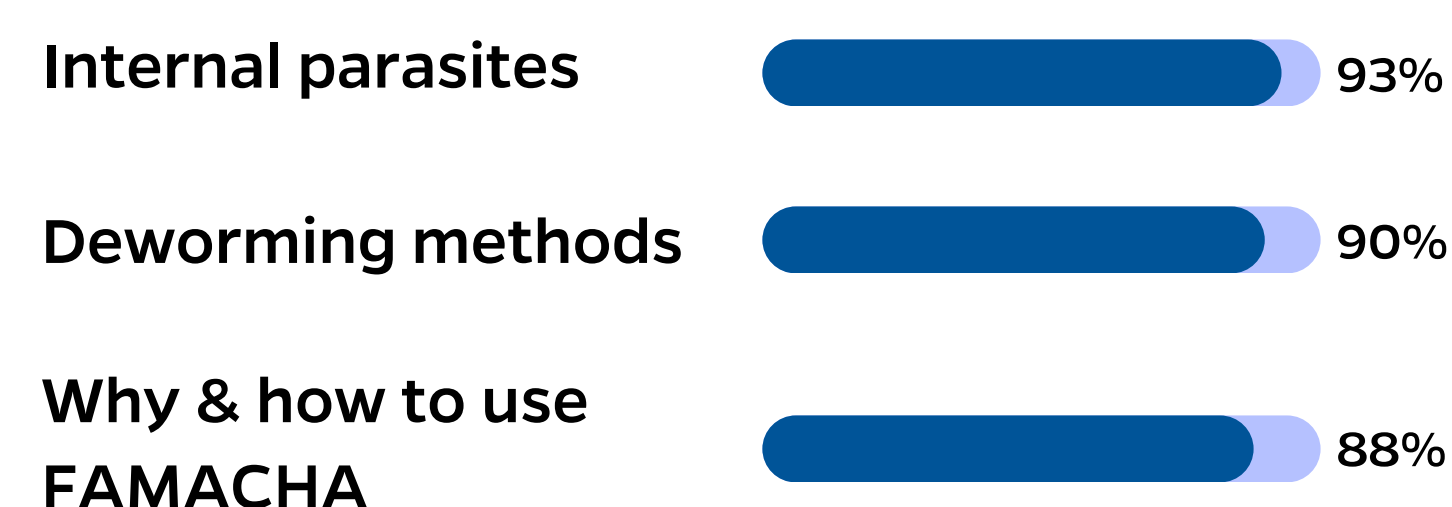


**3** Compare the mucous membrane to the FAMACHA card colors. Scores of 1 and 2 should not be treated. Scores of 4 and 5 need treatment, and scores of 3 require deliberation and consideration of other factors before the producer decides to treat or not.

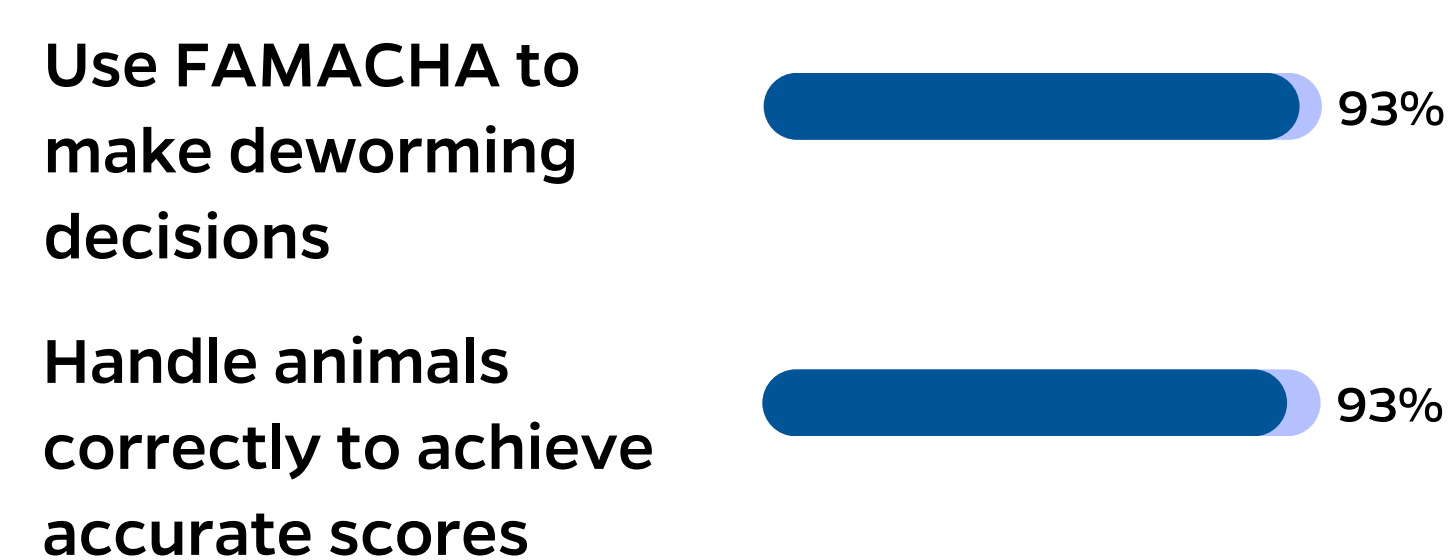
## RESULTS

66 individuals completed the FAMACHA course and became certified over 3 events. 58 post-program surveys were completed and received after the events (87% response rate). Participants reported on knowledge and skill gain and their intention to adopt recommended practices. 6 month and 1 year post-program surveys have been developed and sent to past participants to collect more information on potential impacts.

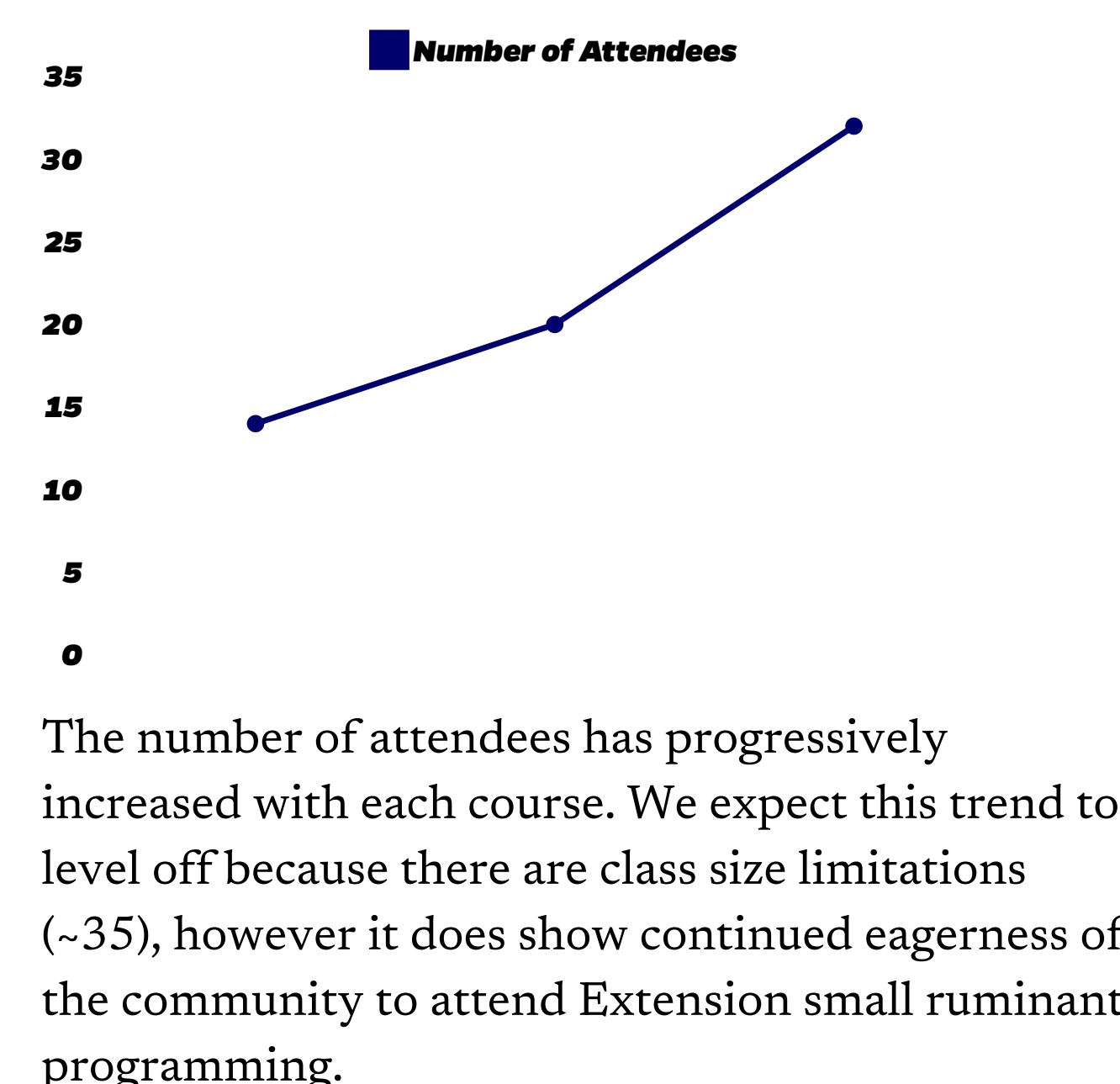
### Knowledge Gain



### Practice Adoption



### Attendance



Impacts of the FAMACHA courses went further than just knowledge gain; another positive effect was the continued attendance of many of our participants to other educational events. Participants of the course recognized the course instructors at another small ruminant program, the Small Ruminant Short Course. Several participants mentioned their enjoyment and appreciation of the FAMACHA program they attended.

## IMPACT

The training offered by UF/IFAS Extension is one of the only opportunities for producers to become certified in FAMACHA scoring and receive a FAMACHA card to utilize on their operation, therefore this service is paramount to reducing dewormer resistance in the state. Because of these efforts, 66 producers have been FAMACHA certified. Participants indicated a total perceived economic impact of \$34,598 for their operations as a result of this valuable training.

## CONCLUSION

The FAMACHA courses have been successful in attracting a large audience of new and experienced sheep and goat producers and educating these producers in topics related to small ruminant health and management. Small ruminants are growing in popularity among Florida new and small farmers, and providing research-based information should be a top priority for UF/IFAS Extension. Small ruminant producers value this effort and are eager to seek this education which is evidenced by participation and interest in FAMACHA courses and other small ruminant programming. Post-program surveys were dispersed and collected with each event to collect feedback from participants. These evaluations showed that participants gained knowledge, intended to adopt recommended practices, and had a perceived economic benefit as a result of the trainings. More data from past participants, such as 1-year post-program surveys, will be collected to uncover more information on practice adoption and operation impacts. One of the major goals of this program is to build and facilitate a community of small ruminant producers that are receptive to research-based training and information and are willing to help and learn from their peers. Participants in the FAMACHA courses have since participated in other small ruminant educational events, a positive sign for the development of a community of small ruminant producers. Collaborators have scheduled future events and have maintained the partnership with UF Animal Sciences to continue to provide a wide range of valuable educational opportunities to small ruminant producers.



## MOVING FORWARD

Biannual FAMACHA courses are set to be a staple educational opportunity for Florida and southeastern small ruminant producers. With three programs successfully delivered so far, the team of authors has picked up on several changes to implement to improve and streamline the course for participants. Completing the video and exam ahead of the in-person program has posed a challenge for some participants, and has caused a lag in program delivery. To address this, the authors have planned the implementation of a Canvas course with redesigned learning materials for participants to complete ahead of time. This online course is expected to improve the testing process for participants and provide another outlet for instructors to connect with producers and provide guidance and additional resources. Troubleshooting delivery of the FAMACHA course has been a big part of continuing to reach the goals of the program and improving the experience of participants. This certification is needed for Florida's growing small ruminant community. The authors will continue to collaborate and work with UF/IFAS Extension specialists to educate the producers on best management practices moving forward.

