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## **Sheep and Goat Producers Preferences on Extension Programming and Delivery**

### **Abstract**

Extension's role has evolved over the years and listening to key stakeholders and producers who utilize services offered by Extension helps keep programs relevant. A non-experimental descriptive study conducted by South Dakota State University (SDSU) examined sheep and goat producers' preferences on programming and delivery. This survey was part of a nationwide Sheep and Goat Needs Assessment with 672 responses collected from 47 states. For in-person programming, most respondents preferred winter months (December – February), mornings, and Saturdays. Email was the best promotional method. These results help enhance Extension efforts ensuring key information and resources are delivered to meet the needs of producers.

**Keywords:** Extension programming, delivery, producer preferences

### **Introduction**

Over the past several decades, Extension has had to rely more on public and private funding sources (Norton and Alwang, 2020) as university funding has decreased (Wang, 2014). As a result, Extension presence has shifted from county-based personnel to more regional specialists. At the same time, commercialization of agriculture has increased the privatization of inputs and intellectual property rights

(Norton and Alwang, 2020; Stuart et al., 2018). As a result, Extension is no longer seen as the only source of information and education for agricultural producers. Some agriculture producers now view Extension as outdated and irrelevant, preferring private sector information as more valuable and current (Stuart et al., 2018), despite the public perception that Extension is a trustworthy source (Settle et al., 2017).

The strength of local Extension programs can shape perceptions about the value of Extension information. In a New England sheep survey, feed salesmen, brochures, and veterinarians were the top sources used when looking for nutritional management information (Kelly et al., 2021). However, there were variations in source(s) used by individual states. For instance, Extension is listed as a top informational source in Maine (Kelly et al., 2021), potentially a reflection of robust, relevant programming. To maintain or increase relevance elsewhere, Extension programs must examine their alignment with the needs of producers.

Franz et al. (2010) found that learning preferences of agricultural producers is often different than Extension's preferred method of teaching or expectations of how producers learn. During the COVID-19 pandemic, Extension programs had to adjust delivery methods to continue engaging with stakeholders. One of the outcomes from these adjustments was an assessment of sheep and goat producer needs by collecting data in three key areas:

- Farm and ranch demographics
- Production and management topics of importance and related challenges
- Extension programming and delivery methods

This paper solely highlights sheep and goat producers' preference on Extension programming and delivery methods.

## **Methods**

A non-experimental descriptive study was conducted by the small ruminant Extension team at South Dakota State University (SDSU). This team consisted of a small ruminant (sheep and goat) specialist, a field sheep specialist, and a livestock stewardship field

specialist. A survey using open-ended and close-ended questions was developed (Tables 1 and 2). This survey was peer-reviewed prior to distribution by fifteen SDSU small ruminant Extension professionals. The same university professionals helped with distribution of the survey throughout the U.S. to producers via direct emails, livestock associations, sheep and goat related social media platforms, news releases, and in-person producer events. The survey was open from January to July 2021 and was formatted as an online QuestionPro survey. Paper copies were available “upon request” but few ( $n = 18$ ) were requested. Paper responses were manually entered into the online survey. Therefore, responses may be skewed towards individuals comfortable using online surveys. All data ( $n=966$ ) were imported into Microsoft Excel® and responses with less than 50% of the questions answered were removed ( $n = 324$ ) prior to analysis. Descriptive statistics were determined using Microsoft Excel®.

## **Results**

A total of 672 responses from 47 states were analyzed to determine preference on Extension programming and delivery methods. When asked what media or publications were used in the last 12 months, the Internet (16%) was the top response followed closely by social media (12%) and electronic newsletters (12%) (Table 1). These participants used an average of 5.8 different media or publication sources over the last 12 months. Write-in options included webinars/virtual workshops (10), other producers/veterinarians (5), and field days, seminars, or meetings (2).

When asked how upcoming Extension programs and resources should be advertised to them, respondents preferred email (38%), electronic newsletters (23%), and mailing (16%) (Table 1). Write-in responses included social media (54), text messages (2), YouTube (1), and multi-media (1). Of the 54 social media mentions, 24 specifically indicated Facebook as a promotional tool.

Forty-three percent preferred a single program ( $\leq 45$  min) for virtual programming, while an all-day program with multiple sessions was preferred (32%) for in-person programming. Winter (34%), mornings (41%), and Saturdays (20%) were the preferred timing for Extension programs (Table 1).

Table 1. Respondent preferences on Extension programming and delivery

Question	Response Options	Frequency	%
In the past 12 months, which of the following types of publications or media have you utilized? Check all that apply. (n= 667)	Internet (i.e., webpages, websites)	615	15.7
	Social media-Facebook, LinkedIn, Twitter, Instagram	479	12.2
	Electronic newsletters (e-newsletters)	470	12
	Magazine(s)	413	10.5
	YouTube	397	10.1
	Books	386	9.8
	Videos-on-line, flash drives, DVD's	363	9.2
	Fact sheets or technical bulletins	310	7.9
	Journal articles	247	6.3
	Podcasts	239	6.1
	None	7	0.2
What format of virtual programs (live and/or recorded) do you prefer to attend? Select all that apply. (n= 663)	Single program ( $\leq 45$ min)	450	42.6
	Single program (90 min)	253	24
	Single half-day program (3-hour max)	101	9.6
	No preference	100	9.5
	All day programs with multiple session options	80	7.6
	Multi-day conferences with multiple session options	72	6.8
What format of in-person programs do you prefer to attend? Select all that apply. (n= 662)	All day programs with multiple session options	344	32.2
	Single half-day program (3-hour max)	245	22.9
	Multi-day conferences with multiple session options	162	15.2
	Single program (90 min)	114	10.7
	Single program ( $\leq 45$ min)	104	9.7
	No preference	100	9.4
What time of year do you like to attend in-person programming? Select all that apply. (n= 653)	Winter (Dec-Feb)	381	34.4
	Fall (Sep-Nov)	328	29.7
	Summer (Jun-Aug)	257	23.2
	Spring (Mar-May)	140	12.7
What time of day do you like to attend programming? Select all that apply. (n= 654)	Morning	421	40.6
	Afternoon	373	35.9
	Evening	244	23.5
What day of the week do you like to attend programming? Select all that apply. (n= 636)	Saturday	399	20.2
	Friday	307	15.6
	Wednesday	284	14.4
	Thursday	279	14.1
	Tuesday	258	13.1
	Sunday	224	11.4
	Monday	221	11.2
How do you prefer for us to promote upcoming Extension programs and resources? Select all that apply. (n= 653)	Email	610	38.3
	Electronic newsletter	372	23.4
	Postcard or flyer sent in mail	246	15.5
	Extension website calendar	192	12.1
	Advertisement in paper, magazine, etc.	112	7
	Phone call	33	2.1
	Radio stations (specify stations)	26	1.6

As this survey was distributed during a pandemic with little to no face-to-face programming being offered at the time, respondents were asked about their willingness to participate in alternative program formats. Emails from Extension (64%), Extension web publications (60%), and online videos (57%) had the highest score, indicating higher willingness to participate by respondents (Table 2). Response excerpts to “What other program types would be preferred?” included:

- “demonstrations and tours”
- “anything that is easy to watch/listen to with the ability to pause to come back and finish/revisit”
- “in-person on-farm workshops”
- “local meetings”
- “recorded webinar emailed to watch at a convenient time”
- “tours and question and answer forums”
- “in-person are the most valuable, followed by YouTube videos of talks or walks or demonstrations”
- “apprenticeship”
- “Extension reports that we can search by topic to get help in certain situations”

Table 2. Responses to the question “Looking towards the next 6 months and knowing that in-person outreach may be limited, please indicate your willingness to participate in the following types of programming.”

Program Type	Willingness to Participate (f) <sup>1</sup>				Mean Score <sup>2</sup>
	1	2	3	4	
Email from Extension (n= 657)	424	196	28	9	1.42
Extension web publications (n= 656)	396	214	38	8	1.48
Online videos (YouTube, n= 653)	369	219	50	15	1.56
E-newsletters (n= 657)	355	240	52	10	1.57
Social media (Facebook, n= 644)	338	212	66	28	1.66
Webinars (Zoom, n= 653)	313	218	83	39	1.77
Podcasts (n= 643)	217	221	164	41	2.05
Other (n= 341) <sup>3</sup>	41	169	69	62	2.45
Radio (n= 634)	76	158	267	133	2.72

<sup>1</sup>1=very likely, 2=somewhat likely, 3=not very likely, 4=not at all likely

<sup>2</sup>A lower mean score indicates a higher likelihood to participate in a program type

<sup>3</sup>Not all respondents that scored Other provided a written response clarifying what other program types they preferred.

## Discussion

Successful Extension programs require producer attendance and engagement. Specifically, identifying producers' preferences for programming and delivery helps ensure programs are well-attended and impactful. Dynamics of Extension have been changing, and most recently information delivery has been disrupted by COVID-19. The objective of this study was not specific to evaluating COVID-19 friendly programs (online programs and resources) and included in-person and virtual program preferences. However, limitations of the data exist because the survey was distributed while in-person programs were still limited, and respondents may have had biases or strong opinions due to local restrictions. We found an aggregated 67% of participants preferred shorter (<90 min.) virtual program formats. According to Nesher Shoshan and Wehrt (2021), participants have found video conferencing more exhausting, "long," and less rich compared with other ways of communicating. Furthermore, videoconferencing has gained a symbolic meaning of "loss" during COVID-19 (Nesher Shoshan and Wehrt, 2021) and thus could have impacted participant preferences from this survey. Additional written comments from respondents generally seem to agree with these other findings. Although participants preferred shorter virtual programs, participants indicated preference for longer formats of in-person programs. The majority (32%) preferred all-day programs with multiple session options, followed by a single half-day program (23%, 3-hour max). Preference for in-person program timing had slight emphasis on fall and winter months, mornings, and Saturdays; however, these majorities are slight and may not give direct indications for a true preference of the entire producer audience for programming timing. As programs are developed, special consideration should be given to the environment in which programs can be delivered, the length, format, and timing to optimize participant engagement.

Multi-modal delivery and promotion methods are key for target audience awareness of programs and resources. Stuart et al. (2018) found that farmers used two to four sources when looking for information on nitrogen application. While these sources were not Extension specific, the amount of readily available information makes this unsurprising. The current study similarly indicates that participants used an average of

over five media and publication sources for information over the past 12 months, with the Internet being the most commonly used source. Of course, sources will depend on the specific information being sought. A New England sheep survey found feed salesmen, brochures, and veterinarians as the top sources used when looking for nutritional management information (Kelly et al., 2021).

Email listservs were indicated as the most preferred method for receiving information on upcoming Extension programs and resources, though participants on average used 2-3 different sources. While it is important to listen to and use the preferred method of communication with producers, these findings reinforce that multi-modal delivery and promotion is key to ensure Extension resources and programs are relevant and easily visible to producers.

### **Conclusions**

Results from this survey provided sheep and goat producers' preferences on Extension programming and delivery. Identification of these preferences are important to help focus and guide Extension program efforts to ensure producer participation and availability. Specifically, this survey indicated preferred virtual programming to be short (<90 minutes), while preferring all-day programs for in-person events. There was a slight emphasis given for programs set during the winter months, in the morning, and on Saturdays. Email listservs are important as a promotional method, but multiple methods of promotion are key for program and resource awareness. While these findings may help guide efforts, it is important for Extension professionals to listen to their specific audiences and continue to be adaptable in delivering quality resources and programs.

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