

Developing Livestock Feed Interventions with the Feed Assessment Tool (FEAST)

Lesson 7: Summarizing Data



ILRI
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Lesson 7: Summarizing Data

Summarizing Numeric Data
Summarizing Qualitative Data



Lesson Objectives

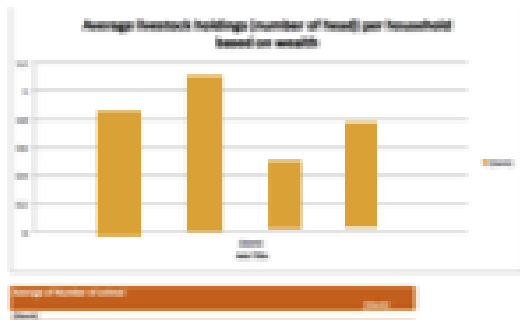
By the end of this lesson, you should be able to:

- Summarize qualitative data collected from the focus group discussions and individual farmer interviews
- Summarize numerical data
- Determine the mean and range for a set of data
- Calculate percentages
- Present pairwise ranking results in tabular form

Key Terminology

- **Qualitative** – Concerned with general qualities of something (e.g., “Are your goats healthy?”)
- **Quantitative** – Concerned with the specific number of something (e.g., “How many goats do you currently own?”)
- **Mean** – The result of adding all the values in a set and dividing by the number of values. What people commonly refer to as the “average”.
- **Range** – The smallest and the largest values in a set

From Data to FCD Report



- A) -----
- B) -----
- C) -----

1. Analyze **quantitative** data and produce graphs using FEAST Data Template

2. Summarize **qualitative** data collected from focus group discussions



3. Merge qualitative and quantitative output in final report. Summarize, interpret and make recommendations

Quantitative vs. Qualitative

- **Qualitative Data**

- Concerned with attributes of something that can't be counted
- “Lemons are sour”
- “The house is blue”

- **Quantitative Data**

- Concerned with exact measurements and numbers
- “I picked one hundred lemons”
- “There are three blue houses in the village”

Quantitative vs. Qualitative

Qualitative Data	Quantitative Data
• General descriptions	• Precise measurements
• Primarily gathered during focus group discussions	• Primarily gathered during individual farmer interviews
• Concerned with perceptions, opinions, overall description of agriculture & livestock production in the area	• Focused on exact figures for farm size, herd size, animal diet, production, income, etc.
• Usually presented in the FCD report as a narrative, summarizing or – in some cases - quoting notes taken in the field	• Often presented in the FCD report as graphs or tables generated by the FEAST Data Template, but also included in the narrative summary

Summary of Qualitative Data

- Summarize qualitative data for each section of the discussion guide / questionnaire
- Identify main points of consensus and write 1-3 paragraph synopsis of each
 - Not necessary to include every response given by every farmer.
 - Can include individual quotes for support / evidence as appropriate
 - Not necessary to include data not directly relevant to FCD



Summary of Qualitative Data (cont.)

- First sentence of paragraph should convey main idea. Remaining sentences provide evidence / detail
- Include numerical data, graphs & charts to illustrate / support claims made in narrative
 - Note any data you might have failed to collect or had to obtain from secondary sources
 - Note points of controversy / dissenting opinions



Writing Summary Paragraphs

Review the notes below. We will compare two different summaries of these notes on the next slide.

- Farmers identified disease as a major factor affecting livestock production
- Veterinary services and livestock management practices e.g. deworming, castration, dipping etc. are easily available however farmers reported that they are costly and unaffordable to most farmers in the area
- The most common diseases in the area include East Coast Fever (ECF), Mastitis, Foot and Mouth disease (FMD).
- Most farmers reported the lack of knowledge on diseases control measures.
- Government artificial insemination (A.I) system is unreliable.

Discussion Question #1

Which summary seems better? Discuss with a classmate.

The farmers cite disease as a major factor affecting livestock production. The most common diseases in the area include East Coast Fever (ECF), Mastitis and Foot and Mouth disease (FMD). Most farmers reported lack of knowledge on diseases control measures. While veterinary services are available, farmers reported that they are costly and unaffordable to most farmers in the area

East Coast Fever (ECF), is one of the most common diseases in the area. The government artificial insemination (A.I) system is unreliable. Most farmers reported lack of knowledge on disease control measures. Veterinary services and livestock management practices e.g. deworming, castration, dipping etc. are easily available. The farmers agreed that disease is a major factor affecting livestock production.

Discussion Question #1 (cont.)

Paragraph 1

The farmers cite disease as a major factor affecting livestock production. The most common diseases in the area include East Coast Fever (ECF), Mastitis and Foot and Mouth disease (FMD). Most farmers reported lack of knowledge on diseases control measures. While veterinary services are available, farmers reported that they are costly and unaffordable to most farmers in the area

First sentence states most important point.

Remaining sentences support / clarify the main idea

Discussion Question #1 (cont.)

Paragraph 2

First sentence is a detail,
not main idea

Second sentence does
not directly relate to first.

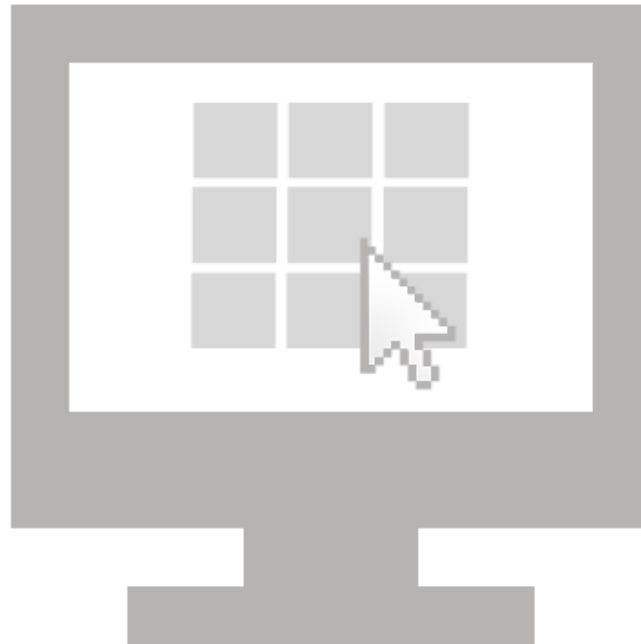
Missing important detail:
veterinary services are
unaffordable to most
farmers in the area

Most important point is at
the end of paragraph

East Coast Fever (ECF), is one of the most common diseases in the area. The government artificial insemination (A.I) system is unreliable. Most farmers reported lack of knowledge on disease control measures. Veterinary services and livestock management practices e.g. deworming, castration, dipping etc. are easily available. The farmers agreed that disease is a major factor affecting livestock production.

Activity 7.1: Summarizing Qualitative Data

Complete Activity 7.1: Summarizing Qualitative Data



Summarizing Numeric Data

There are several ways to summarize a set of numeric data (e.g., household sizes or land holdings):

Term	Indicates	How to Calculate	Example
Mean / Average	What is the typical value?	Add all values in the set, then divide by the number of values in the set.	For the set 1, 2, 3, the mean is $1+2+3 = 6 / 3$, or 2
Range	What are the highest and lowest values?	Take the largest and smallest values in the set	For the set 1, 2, 3 the range is 1 to 3.

Summarizing Numeric Data (cont.)

Responses to “What is the average household size?”

Farmer	Answer
Farmer A	4
Farmer B	4
Farmer C	5
Farmer D	5
Farmer E	5
Farmer F	6
Farmer G	6

Summarizing Numeric Data (cont.)

Responses to “What is the average household size?”

Farmer	Answer
Farmer A	4
Farmer B	4
Farmer C	5
Farmer D	5
Farmer E	5
Farmer F	6
Farmer G	6

Range = 4 to 6

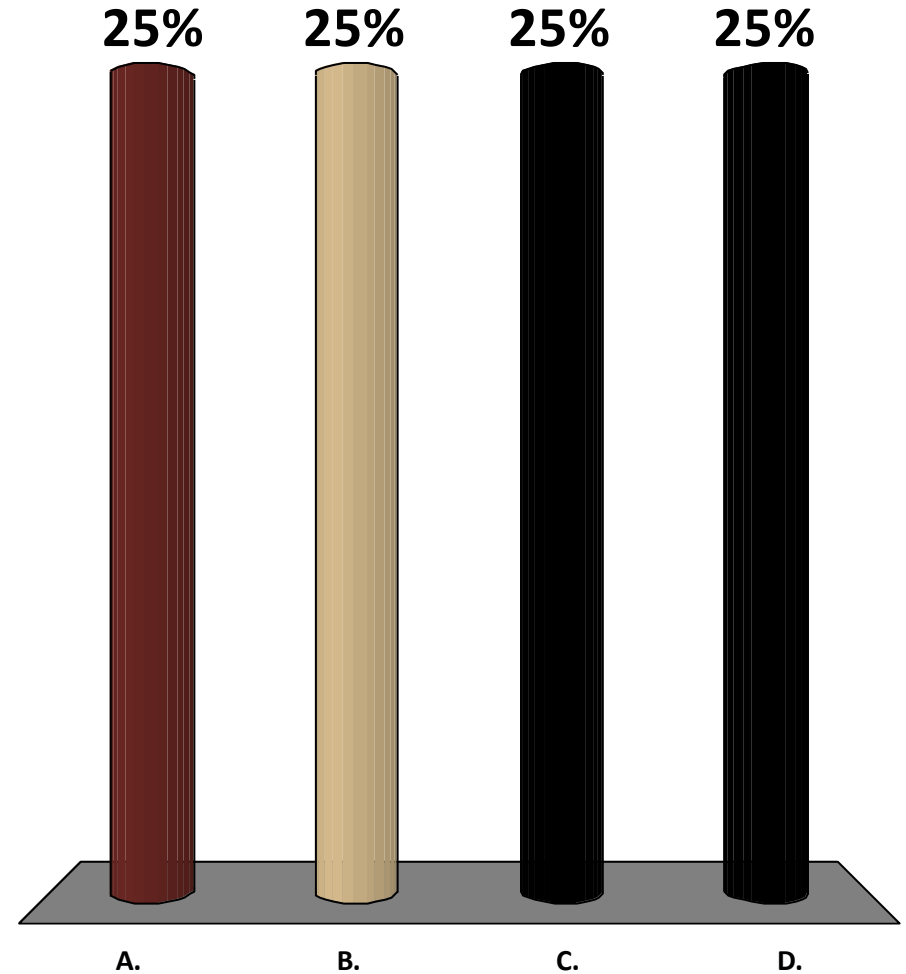
Mean = $(4+4+5+5+5+6+6) / 7 = 35 / 7 = 5$

Review Question #1

What is the mean for the following set of numbers?

1, 2, 2, 4, 6

- A. 6
- B. 3
- C. 2
- D. 1

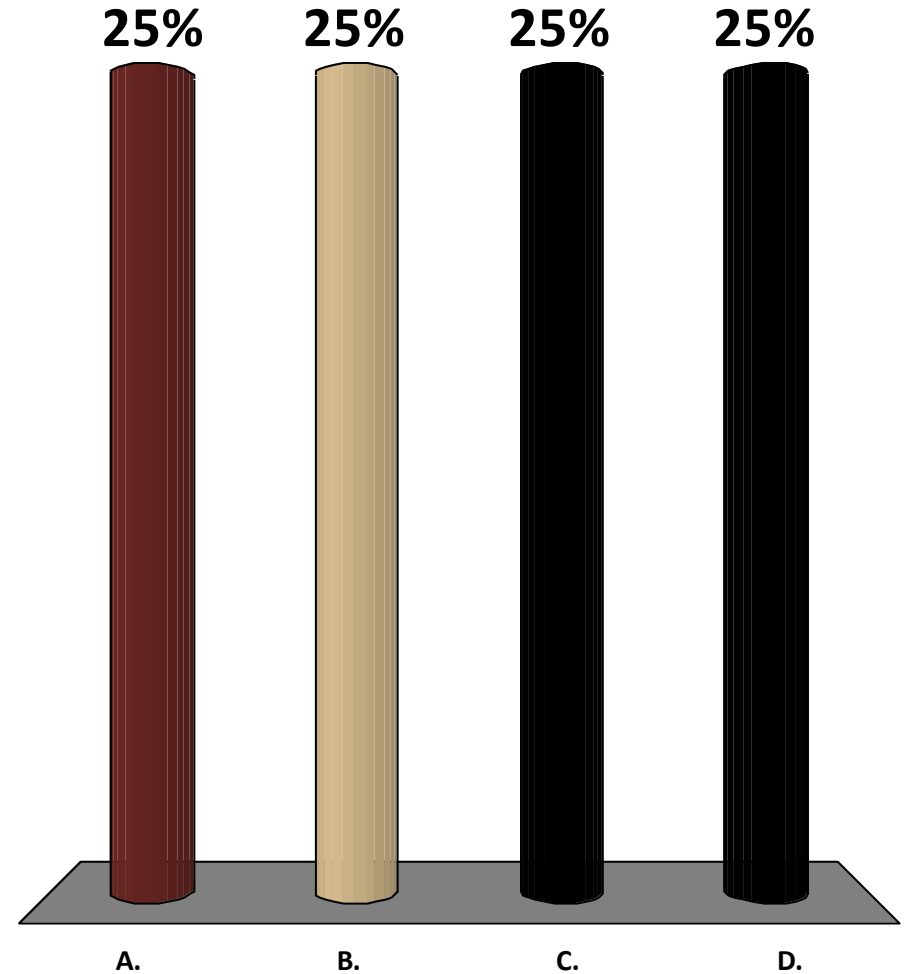


Review Question #2

What is the range for the following set of numbers?

1, 2, 2, 4, 6

- A. 30
- B. 5
- C. 1 – 15
- D. 1 – 6



Finding Percentages

1. Identify categories reported in group (e.g. styles of feeding)
2. Count number of farmers in each group (the count is commonly referred to as the *frequency*)
3. Divide the frequency by the total number of farmers then multiply by 100 to find the percentage (%) in each group

Style of feeding	Frequency	Frequency ÷ Total	Percentage
Stall feeding only	2	0.08	8%
Mainly stall feeding with some grazing	11	0.44	44%
Mainly grazing with some stall feeding	7	0.28	28%
Grazing only	5	0.20	20%
Total	25	1.00	100%

Tabulating Pairwise Rankings

Summarize pairwise ranking results in table format:

MAIN PROBLEM	SOLUTION	RANK
Inadequate feed quantity and quality in the dry season	Introduce high yielding fodders, training on fodder and pasture establishment	1
Poor cattle breeds	Develop a breeding program based on artificial insemination and sensitize farmers to castrate local bulls	3
Poor access to adequate water in the dry season	Train farmers on water harvesting technologies	2
Foot and mouth disease	Train farmers on tick control methods and dip maintenance and management	5
Poor access to inputs and supplies	Stocking Agro vets with cheap inputs	4

Lesson Objectives

You should now be able to:

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Questions?