

2015 WSARE Report

A workshop was held in Logan, UT from 27-29 May 2015. There were 31 students, respectively, from: universities and extension (20), NRCS/CD (10), and industry (1) (Table 1). Instructors for the seminar/workshop used 10 extension employees from University of Idaho, Washington State University, Oregon State University, Colorado State University, Utah State University, and Montana State University; 1 USDA-ARS, and 1 state department of agriculture instructor.

The effectiveness of the workshop was documented with anonymous response recording devices with a pre-workshop and post-workshop test with identical questions. There were 30 respondents on the pre-test and 18 on the post-test (Table 2). The average improvement in correct response was 30% ($P < 0.001$) from the pre- to post-test. There was an increase in 50% of correct responses for question 3 on calculation of pure live seed index. For question 16, there was a 52% increase in correct response concerning the concept of hoof action and carbon sequestration. Question 14 showed a decrease in correct response, but that was because we apparently failed to present the information on bloat resistance.

Respondents indicated 72% strongly agreed and 28% agreed the workshop met their expectations and they gained an understanding of critical concepts and principles. When asked about desired training, the following indicated strongly agree for: cover crops (56%) and forage quality analyses and forage allocation in rations (61%).

Table 1. Location, dates, and professionals educated by the pasture and grazing management training workshops.

Location	Dates	Univ/ Ext	NRCS/ CD	Industry	State	Pro- ducers	Total
Salmon, ID	21-23 August 2012	14	12	2			28
Ft. Collins, CO	20-22 August 2013	23	17	9			26
Dallas, Or	22-22 Oct. 2013						23
Mt Vernon, WA	22-24 April 2014	18	29	2	3	5	57
Logan, UT	27-29 May 2015	20	10	1			31
Total		75	68	14	3	5	165

Table 2. Pre- and Post-Test Responses for Pasture and Grazing Management Workshop in Logan, UT

Pre-test	Post-test	Improvement in Score 30%
Date: 5/27/2015	Date: 5/29/2015	
Participants: 30	Participants: 18	
Questions: 18		
Average Score: 53.89%	Average Score: 83.95%	

1.) When establishing new stands of perennial grasses, you should concentrate on applying? (Multiple Choice)

	Pre-test		Post-test		Change from Pre- to Post-Test
	Percent	Count	Percent	Count	
Nitrogen	41%	12	0%	0	30%
6 ounces of humic acid	0%	0	0%	0	
Potassium	10%	3	22%	4	
Should not apply fertilizer until plants are well established (c)	48%	14	78%	14	
Totals	100%	29	100%	18	

2.) Certified seed usually comes directly from registered seed. (True / False)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
True (c)	48%	14	89%	16	41%
False	52%	15	11%	2	
Totals	100%	29	100%	18	

3.) PLS is calculated: (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
(%Purity/%Germination)	40%	12	0%	0	50%
$(\%Purity \times \%Germination) / 100$ (c)	50%	15	100%	18	
(Cost of seed) / (Seeding rate)	7%	2	0%	0	
(Pounds of seed) x (Seed Cost)	3%	1	0%	0	
Totals	100%	30	100%	18	

4.) What is the best buy? (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
Bullet seed at \$3.00/lb (c)	82%	23	89%	16	7%
VNS seed at \$2.80/lb.	18%	5	11%	2	
Totals	100%	28	100%	18	

5.) If germination is 90% and purity is 90%, what is the PLS Index? (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
18	17%	5	6%	1	
90	31%	9	0%	0	
99	3%	1	0%	0	
81 (c)	48%	14	94%	17	46%
Totals	100%	29	100%	18	

6.) Where do cool-season grasses store the most energy for tissue growth and respiration? (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
Roots	41%	12	0%	0	
Leaves	0%	0	0%	0	
Stem bases and lower sheaths (c)	59%	17	100%	18	41%
Seed	0%	0	0%	0	
Totals	100%	29	100%	18	

7.) Bacteria fix nitrogen in nodules on legume roots. Nodules are ____ color inside when actively fixing N? (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
Green	0%	0	0%	0	
White	25%	7	6%	1	
Red or pink (c)	71%	20	94%	17	23%
Grey	4%	1	0%	0	
Totals	100%	28	100%	18	

8.) Forage plants are very photosynthetically efficient because they capture more than 50% of the solar radiation and have 99% conversion of energy. (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
True	59%	17	33%	6	
False (c)	41%	12	67%	12	25%
Totals	100%	29	100%	18	

9.) The accumulation of successive _____ differentiated from a single apical meristem defines the tiller. (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
Phytomers (c)	17%	5	78%	14	61%
Leaves	17%	5	0%	0	
Culms	24%	7	17%	3	
Rhizomes	21%	6	6%	1	
Sheaths	21%	6	0%	0	
Totals	100%	29	100%	18	

10.) In culmed, or long-shooted vegetative tillers, the apical meristem is elevated above the soil surface by internode elongation while in a vegetative condition. (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
True (c)	90%	26	94%	17	5%
False	10%	3	6%	1	
Totals	100%	29	100%	18	

11.) For perennial grasses: _____ originates from the activity of intercalary meristems located at the base of the several uppermost internodes. (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
Leaf tips	0%	0	6%	1	
Culm elongation (c)	14%	4	17%	3	3%
Apical meristem	48%	14	56%	10	
Reproductive tiller	38%	11	22%	4	
Totals	100%	29	100%	18	

12.) ET from irrigated grass-legume pastures in July-August can exceed ____ inches per day? (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
0.10 inches	0%	0	0%	0	
0.15 inches	21%	6	6%	1	
0.20 inches	28%	8	0%	0	
0.25 inches (c)	52%	15	94%	17	43%
Totals	100%	29	100%	18	

13.) Which grass is a host but is tolerant (no yield loss) of root lesion nematode? (Multiple Choice)

	Pre-test		Post-test	
	Percent	Count	Percent	Count
Tall fescue	52%	15	41%	7
Orchardgrass	14%	4	0%	0
Timothy (c)	24%	7	59%	10
Smooth brome	10%	3	0%	0
Totals	100%	29	100%	17

35%

14.) Name the legume that is non-bloating. (Multiple Choice)

	Pre-test		Post-test	
	Percent	Count	Percent	Count
Alfalfa	0%	0	0%	0
Red clover	3%	1	6%	1
Birdsfoot trefoil (c)	97%	28	89%	16
White clover	0%	0	6%	1
Totals	100%	29	100%	18

-8%

15.) Which method to estimate forage production is most accurate? (Multiple Choice)

	Pre-test		Post-test	
	Percent	Count	Percent	Count
Visual (ocular)	3%	1	0%	0
Grazing stick	3%	1	0%	0
Rising plate meter	14%	4	0%	0
Pasture probe	0%	0	0%	0
Clipping and weighing (c)	79%	23	100%	17
Totals	100%	29	100%	17

21%

16.) Hoof action from mob grazing will increase organic matter in soil. (True / False)

	Pre-test		Post-test	
	Percent	Count	Percent	Count
True	52%	15	0%	0
False (c)	48%	14	100%	16
Totals	100%	29	100%	16

52%

17.) Rodenticide labels have to list the target pest. (True / False)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
True (c)	90%	26	100%	18	10%
False	10%	3	0%	0	
Totals	100%	29	100%	18	

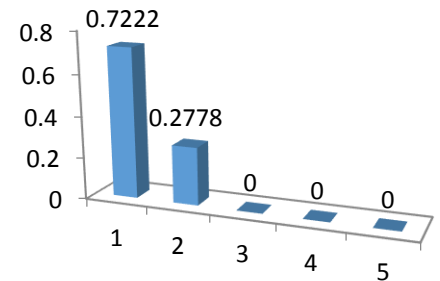
18.) How many days will the paddock provide adequate feed given: 1,500 lbs DM/acre useable forage 30 lbs DM/AUD 50 AU on 10 acres (Multiple Choice)

	Pre-test		Post-test		
	Percent	Count	Percent	Count	
1 day	14%	4	0%	0	
5 days	28%	8	0%	0	
10 days (c)	48%	14	89%	16	41%
15 days	10%	3	11%	2	
Totals	100%	29	100%	18	

Overall improvement in correct scores from pre- to post-tests: 29%

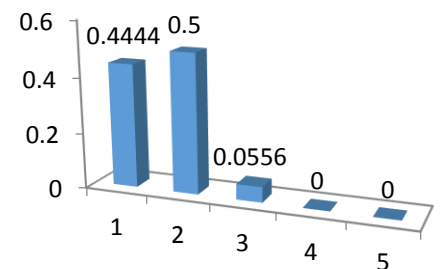
19.) Did the workshop meet your expectations? (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	72%	13
Agree	28%	5
Neutral	0%	0
Disagree	0%	0
Strongly Disagree	0%	0
Totals	100%	18



20.) Was there a good balance of lectures and hands-on exercises? (Multiple Choice)

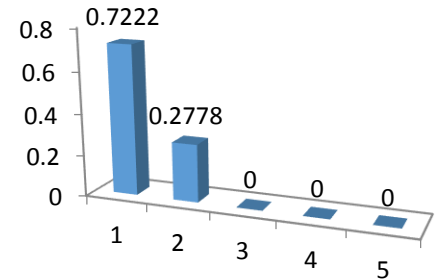
	Responses	
	Percent	Count
Strongly Agree	44%	8
Agree	50%	9
Neutral	6%	1
Disagree	0%	0



Strongly Disagree	0%	0
Totals	100%	18

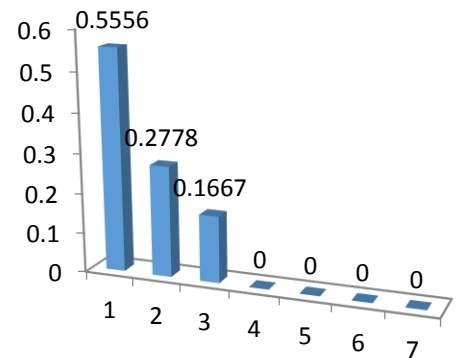
21.) Did you gain understanding of critical concepts and principles? (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	72%	13
Agree	28%	5
Neutral	0%	0
Disagree	0%	0
Strongly Disagree	0%	0
Totals	100%	18



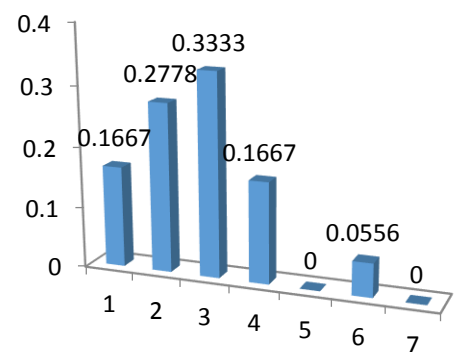
22.) I desire training in cover crops? (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	56%	10
Agree	28%	5
Somewhat Agree	17%	3
Neutral	0%	0
Somewhat Disagree	0%	0
Disagree	0%	0
Strongly Disagree	0%	0
Totals	100%	18



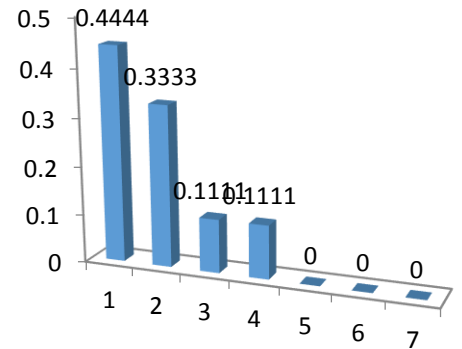
23.) I desire training in alfalfa production? (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	17%	3
Agree	28%	5
Somewhat Agree	33%	6
Neutral	17%	3
Somewhat Disagree	0%	0
Disagree	6%	1
Strongly Disagree	0%	0
Totals	100%	18



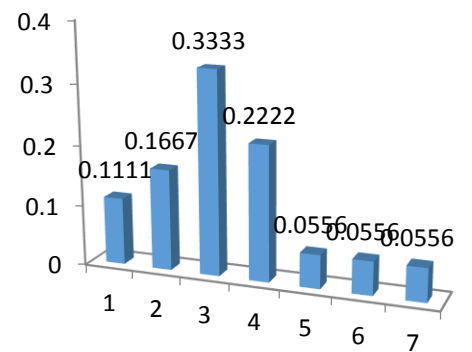
24.) I desire training in annual forages? (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	44%	8
Agree	33%	6
Somewhat Agree	11%	2
Neutral	11%	2
Somewhat Disagree	0%	0
Disagree	0%	0
Strongly Disagree	0%	0
Totals	100%	18



25.) I desire training in corn and corn silage production and utilization? (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	11%	2
Agree	17%	3
Somewhat Agree	33%	6
Neutral	22%	4
Somewhat Disagree	6%	1
Disagree	6%	1
Strongly Disagree	6%	1
Totals	100%	18



26.) I desire training in forage quality analyses and forage allocation in rations? (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	61%	11
Agree	11%	2
Somewhat Agree	17%	3
Neutral	11%	2
Somewhat Disagree	0%	0
Disagree	0%	0
Strongly Disagree	0%	0
Totals	100%	18

