

2011 Clover Underseeding SARE Study Data

Table 1. Agronomic Data

<u>Treatment</u>	Yield (lb/ac)	Protein ¹ (%)	N of wheat biomass at boot stage (%)	C:N ratio of wheat biomass at boot stage	Weed biomass at harvest (lbs/ac)	Clover biomass at harvest (lbs/ac)	Total Understorey biomass at harvest (lbs/ac)	Percent Weeds (%)
RC	731	11.63	1.06	38.78	1388 a	1907 b	3295	44.7 a
WC	780	11.63	1.07	38.14	384 b	4394 a	4778	8.3 b

¹ Protein reported was adjusted to 13.5% moisture

² NC = No clover, RC = Red clover @ 12 lbs/ac, WC = Ladino white clover @ 10 lbs/ac,
Four reps per treatment
Numbers not connected by the same letters are significantly different ($P < 0.05$)

Table 2. Soils Data

<u>Treatment</u>	<u>S</u> ppm	<u>Mn</u> ppm	<u>B</u> ppm	<u>Cu</u> ppm	<u>Fe</u> ppm	<u>Na</u> ppm	Base Saturation		
							<u>%Ca</u>	<u>%K</u>	<u>%Mg</u>
NC ¹	6.50	3.20	0.28	0.18	2.38	38.75	86.35	1.20	12.45
RC	6.75	3.23	0.28	0.18	2.55	42.75	84.53	1.35	14.13
WC	5.00	2.70	0.26	0.16	1.95	29.00	86.33	1.20	12.48

¹ NC = No clover, RC = Red clover @ 12 lbs/ac, WC = Ladino white clover @ 10 lbs/ac
Four reps per treatment

Table 2, Continued. Soils Data

<u>Treatment</u>	<u>pH</u>	<u>Avail P</u> ppm	<u>K</u> ppm	<u>Mg</u> ppm	<u>Al</u> ppm	<u>Ca</u> ppm	<u>CEC</u> Meq/100g	<u>Zn</u> ppm	<u>OM</u> ppm
RC	7.08	2.6	93.25	300.00	15.00	2893.25	17.20	0.43	3.65
WC	7.05	3.48	77.50	254.75	11.50	2817.50	16.40	0.43	3.70

¹ NC = No clover, RC = Red clover @ 12 lbs/ac, WC = Ladino white clover @ 10 lbs/ac
Four reps per treatment

Table 3. Weather Conditions during Critical Disease Window (June 7-30)

<u>Mean Daily Temp</u> (F)	<u>Mean Daily High/Low Air Temp</u> (F)	<u>Rainfall in inches</u>	<u>Number of days</u> with > 0.01"
67.54	80.13 (hi) 56.84 (low)	4.45	11
Rainfall (in) per Event	June 10 0.61	June 23 0.56	June 25 0.72

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Table 4. Disease Data

<u>Treatment</u>	<u>DON</u> ¹	<u>FHB Incidence</u>	<u>FHB Severity</u>	<u>FHB Index</u>	<u>Fusarium spp. CFUs/mL at 100 cm</u>	<u>Fusarium spp. CFUs/mL at 30 cm</u>	<u>Splash Vol. (mL) at 100 cm</u>	<u>Splash Volume (mL) at 30 cm</u>	<u>Total CFUs 100 cm</u>	<u>Total CFUs at 30 cm</u>
NC ²	0.30	18.55%	15.61%	3.42	2.28 (9.8) ³	1.79 (6.0)	5.82	5.10	3.60 (36.6)	2.81 (16.6)
RC	0.45	22.48%	12.94%	3.06	2.30 (10.0)	2.30 (10.0)	5.67	4.27	3.51 (33.5)	3.12 (22.7)
WC	0.33	22.15%	16.66%	3.98	2.40 (11.0)	2.20 (9.0)	6.29	4.89	3.82 (45.6)	3.31 (27.4)

¹ Testing was done on yield bags; Four reps per treatment

² NC = No clover, RC = Red clover @ 12 lbs/ac, WC = Ladino white clover @ 10 lbs/ac³

Values in parentheses are actual colony forming unit (CFU) counts, not natural log transformed

One weather station per treatment

**Table 5. Understory Environment Data
June 7 – July 14, 2011**

<u>Treatment</u>	<u>Mean Daily Soil Moisture (surface)</u>	<u>Mean Daily Soil Moisture Range (surface)</u>	<u>Mean Daily Soil Temp (surface)</u>	<u>Mean Daily Soil Temp Range</u>
NC ¹	15.0	21.57 (high) 10.55 (low)	68.22	79.64 (high) 66.41 (low)
RC	NA ²	NA NA	67.15	72.98 (high) 65.76 (low)
WC	22.8	29.51 (high) 17.74 (low)	70.15	74.96 (high) 66.26 (low)

¹ NC = No clover, RC = Red clover @ 12 lbs/ac, WC = Ladino white clover @ 10 lbs/ac

² Soil moisture equipment failed in red clover treatment plot

One weather station per treatment

Table 6. Leaf Wetness Hours per Day

Date in June 2011

<u>Treatment</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
NC ¹	4	24	19	6	19	14.5	8.5	2.5	13	15.5	24	20.5	15	11
RC	2.5	7.5	17.5	3	17	15	9	8	13	7.5	9.5	24	24	16
WC	0	7.5	22	5	15.5	18	18.5	16.5	15	14	22.5	13.5	12	14.5

¹ NC = No clover, RC = Red clover @ 12 lbs/ac, WC = Ladino white clover @ 10 lbs/ac

Measured at 40 cm above soil surface, leaf wetness pads all oriented to face north

One weather station per treatment
