

## Energy-Pack

		<b>Harvest complete</b>								
Corn		All seed F&I seed treatment			12-Nov-20	12-Nov-20	12-Nov-20	12-Nov-20	6-May-20	
2020-181		Metalaxyl, Fluoxastrobin, Clothianidin 500, Prothioconazole Votivo			Harvest	Harvest	Harvest	Grain yield	Planted	
replication	treatment	treatment contents			grain	plot	plot	adjusted to	plot	
				plot	moisture	weight	test wt	@15%	width	
					%	lbs	lbs	bu/acre	ft	
1	1	Grower Standard @ 4 gal/acre 6-24-6 LIF			103	17.1	141.96	57.6	239.33	10.0
2	1				201	17.5	145.02	57.4	243.30	10.0
3	1				302	17.3	137.96	57.7	232.02	10.0
4	1	16 gals/acre 28-0-0 V5 sidedress			404	17.5	139.22	57.6	233.57	10.0
					<b>17.4</b>	<b>141.04</b>	<b>57.6</b>	<b>237.06</b>	<b>10.0</b>	
1	2	Grower Standard @ 4 gal/acre 6-24-6 LIF			104	17.4	143.29	57.9	240.69	10.0
2	2	0.4 oz/acre Energy-pack + 3.0 oz/acre Brown Sugar LIF			202	17.7	145.18	57.9	242.98	10.0
3	2				303	17.5	144.37	57.7	242.21	10.0
4	2	16 gals/acre 28-0-0 V5 sidedress			401	17.9	143.98	57.8	240.39	10.0
					<b>17.6</b>	<b>144.21</b>	<b>57.8</b>	<b>241.57</b>	<b>10.0</b>	
1	3	Grower Standard @ 4 gal/acre 6-24-6 LIF			101	17.2	144.91	57.7	244.00	10.0
2	3				203	17.3	142.19	57.9	239.13	10.0
3	3	9.6 gals/acre 28-0-0 V5 sidedress			304	17.5	150.31	57.8	252.18	10.0
4	3	0.4 oz/acre Energy-pack + 3.0 oz/acre Brown Sugar V5			402	17.4	146.77	57.9	246.54	10.0
					<b>17.4</b>	<b>146.05</b>	<b>57.8</b>	<b>245.46</b>	<b>10.0</b>	
1	4	Grower Standard @ 4 gal/acre 6-24-6 LIF			102	17.4	145.99	58.0	245.23	10.0
2	4	0.4 oz/acre Energy-pack + 3.0 oz/acre Brown Sugar LIF			204	17.9	151.18	57.9	252.41	10.0
3	4	9.6 gals/acre 28-0-0 V5 sidedress			301	17.2	147.32	57.9	248.06	10.0
4	4	0.4 oz/acre Energy-pack + 3.0 oz/acre Brown Sugar V5			403	17.6	146.37	58.1	245.27	10.0
					<b>17.5</b>	<b>147.72</b>	<b>58.0</b>	<b>247.74</b>	<b>10.0</b>	

8-May-20 Planted plot length ft	12-Nov-20 Harvested plot width ft	12-Nov-20 Harvested plot length ft	8-May-20 Seeding density 35K/acre seeds x1000	22-May-20 0DAE Plant density emergence count x1000	23-May-20 1DAE Plant density emergence count x1000	24-May-20 2DAE Plant density emergence count x1000	25-May-20 3DAE Plant density emergence count x1000	26-May-20 4DAE Plant density emergence count x1000	27-May-20 5DAE Plant density emergence count x1000	27-May-20 5DAE Plant phytotoxicity %
50.0	10.0	45.0	35.0	9.3	12.9	14.9	24.1	30.1	32.6	0.0
50.0	10.0	45.0	35.0	7.2	13.7	19.3	26.3	29.9	32.7	0.0
50.0	10.0	45.0	35.0	6.5	10.9	16.7	20.4	31.1	32.5	0.0
50.0	10.0	45.0	35.0	8.3	14.7	18.4	22.7	30.7	32.6	0.0
<b>50.0</b>	<b>10.0</b>	<b>45.0</b>	<b>35.0</b>	<b>7.8</b>	<b>13.1</b>	<b>17.3</b>	<b>23.4</b>	<b>30.5</b>	<b>32.6</b>	<b>0.0</b>
50.0	10.0	45.0	35.0	11.3	15.3	20.9	26.2	32.6	33.1	0.0
50.0	10.0	45.0	35.0	8.8	14.8	18.9	26.1	31.9	33.5	0.0
50.0	10.0	45.0	35.0	9.2	16.2	19.3	23.9	32.7	33.3	0.0
50.0	10.0	45.0	35.0	7.6	13.7	21.1	26.8	31.8	33.2	0.0
<b>50.0</b>	<b>10.0</b>	<b>45.0</b>	<b>35.0</b>	<b>9.2</b>	<b>15.0</b>	<b>20.1</b>	<b>25.8</b>	<b>32.3</b>	<b>33.3</b>	<b>0.0</b>
50.0	10.0	45.0	35.0	7.6	11.6	17.6	20.1	30.6	32.9	0.0
50.0	10.0	45.0	35.0	8.4	13.9	16.3	22.9	28.9	32.6	0.0
50.0	10.0	45.0	35.0	9.1	14.2	18.5	24.3	31.2	32.7	0.0
50.0	10.0	45.0	35.0	6.6	12.8	15.8	25.6	30.6	32.5	0.0
<b>50.0</b>	<b>10.0</b>	<b>45.0</b>	<b>35.0</b>	<b>7.9</b>	<b>13.1</b>	<b>17.1</b>	<b>23.2</b>	<b>30.3</b>	<b>32.7</b>	<b>0.0</b>
50.0	10.0	45.0	35.0	10.8	14.4	20.3	24.1	32.9	33.7	0.0
50.0	10.0	45.0	35.0	8.9	16.2	19.3	26.9	31.7	33.4	0.0
50.0	10.0	45.0	35.0	9.4	13.9	21.4	27.2	32.6	33.5	0.0
50.0	10.0	45.0	35.0	8.2	13.7	20.4	25.1	32.3	33.5	0.0
<b>50.0</b>	<b>10.0</b>	<b>45.0</b>	<b>35.0</b>	<b>9.3</b>	<b>14.6</b>	<b>20.4</b>	<b>25.8</b>	<b>32.4</b>	<b>33.5</b>	<b>0.0</b>

						1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20
						R1	R1	R1	R1
5 = best				5 = best	5 = best	PLFA	PLFA	PLFA	PLFA
27-May-20	14-Jun-20	14-Jun-20	14-Jun-20	14-Jun-20	2-Jul-20	analysis	analysis	Functional	Functional
5DAE	V4	V4	V4	V4	V5 + 14 days	Total living	Functional	group	group
Plant	Plant	Plant	Plant	Plant	Plant	microbial	group	Total	Total
vigor	density	emergence	phytotoxicity	vigor	vigor	biomass	diversity	bacteria	bacteria
1-5	x1000	%	%	1-5	1-5	ng/g	index	ng/g	% of biomass
3.0	33.6	96.0	0.0	3.0	3.0	5093.63	1.562	2054.29	40.33
3.0	33.5	95.7	0.0	3.0	3.0	n/a	n/a	n/a	n/a
3.0	33.4	95.4	0.0	3.0	3.0	n/a	n/a	n/a	n/a
3.0	33.5	95.7	0.0	3.0	3.0	n/a	n/a	n/a	n/a
<b>3.0</b>	<b>33.5</b>	<b>95.7</b>	<b>0.0</b>	<b>3.0</b>	<b>3.0</b>	<b>5093.63</b>	<b>1.562</b>	<b>2054.29</b>	<b>40.33</b>
4.0	33.7	96.3	0.0	4.0	4.0	5370.82	1.604	2127.92	39.62
5.0	33.7	96.3	0.0	3.0	3.0	n/a	n/a	n/a	n/a
4.0	33.6	96.0	0.0	4.0	4.0	n/a	n/a	n/a	n/a
4.0	33.6	96.0	0.0	4.0	4.0	n/a	n/a	n/a	n/a
<b>4.3</b>	<b>33.7</b>	<b>96.1</b>	<b>0.0</b>	<b>3.8</b>	<b>3.8</b>	<b>5370.82</b>	<b>1.604</b>	<b>2127.92</b>	<b>39.62</b>
3.0	33.3	95.1	0.0	3.0	4.0	5370.57	1.594	2148.92	40.01
3.0	33.6	96.0	0.0	3.0	4.0	n/a	n/a	n/a	n/a
3.0	33.4	95.4	0.0	3.0	5.0	n/a	n/a	n/a	n/a
3.0	33.5	95.7	0.0	3.0	4.0	n/a	n/a	n/a	n/a
<b>3.0</b>	<b>33.5</b>	<b>95.6</b>	<b>0.0</b>	<b>3.0</b>	<b>4.3</b>	<b>5370.57</b>	<b>1.594</b>	<b>2148.92</b>	<b>40.01</b>
4.0	33.8	96.6	0.0	4.0	4.0	5603.56	1.615	2299.87	41.04
4.0	33.6	96.0	0.0	4.0	4.0	n/a	n/a	n/a	n/a
4.0	33.7	96.3	0.0	3.0	4.0	n/a	n/a	n/a	n/a
5.0	33.6	96.0	0.0	3.0	5.0	n/a	n/a	n/a	n/a
<b>4.3</b>	<b>33.7</b>	<b>96.2</b>	<b>0.0</b>	<b>3.5</b>	<b>4.3</b>	<b>5603.56</b>	<b>1.615</b>	<b>2299.87</b>	<b>41.04</b>

1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20
R1	R1	R1	R1	R1	R1	R1	R1	R1
PLFA	PLFA	PLFA	PLFA	PLFA	PLFA	PLFA	PLFA	PLFA
Functional group	Functional group	Functional group	Functional group	Functional group	Functional group	Functional group	Functional group	Community composition
Total Gram (+) bacteria	Total Gram (+) bacteria	Gram (+) Actinomycetes	Gram (+) Actinomycetes	Total Gram (-) bacteria	Total Gram (-) bacteria	Gram (-) Rhizobia	Gram- Rhizobia	ratios Gram (+)/Gram (-)
ng/g	% of biomass	total ng/g	% of biomass	ng/g	% of biomass	total ng/g	% of biomass	+/-
1352.14	26.55	401.53	7.88	702.15	13.78	53.29	1.05	1.9257
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>1352.14</b>	<b>26.55</b>	<b>401.53</b>	<b>7.88</b>	<b>702.15</b>	<b>13.78</b>	<b>53.29</b>	<b>1.05</b>	<b>1.9257</b>
1392.63	25.93	411.24	7.66	735.29	13.69	56.77	1.06	1.8940
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>1392.63</b>	<b>25.93</b>	<b>411.24</b>	<b>7.66</b>	<b>735.29</b>	<b>13.69</b>	<b>56.77</b>	<b>1.06</b>	<b>1.8940</b>
1412.96	26.31	433.98	8.08	735.96	13.70	54.13	1.01	1.9199
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>1412.96</b>	<b>26.31</b>	<b>433.98</b>	<b>8.08</b>	<b>735.96</b>	<b>13.70</b>	<b>54.13</b>	<b>1.01</b>	<b>1.9199</b>
1498.63	26.74	486.32	8.68	801.24	14.30	56.94	1.02	1.8704
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>1498.63</b>	<b>26.74</b>	<b>486.32</b>	<b>8.68</b>	<b>801.24</b>	<b>14.30</b>	<b>56.94</b>	<b>1.02</b>	<b>1.8704</b>

1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20	1-Aug-20
R1	R1	R1	R1	1-Aug-20	1-Aug-20	R1	1-Aug-20	1-Aug-20	R1
PLFA	PLFA	PLFA	PLFA	R1	R1	PLFA	R1	R1	PLFA
Functional	Functional	Functional	Functional	Functional	Functional	Community	Functional	Functional	Community
group	group	group	group	group	group	composition	group	group	composition
Total	Total	Arbuscular	Arbuscular	Saprophytes	Saprophytes	ratios	Protozoa	Protozoa	ratios
fungi	fungi	Mycorrhizal	Mycorrhizal	Saprophytes	Saprophytes	Fungi/Bacteria	Protozoa	Protozoa	Protozoa/Bacteria
ng/g	% of biomass	ng/g	% of biomass	ng/g	% of biomass	f/g	ng/g	% of biomass	p/b
401.95	7.89	152.41	2.99	284.16	5.58	0.1957	48.03	0.94	0.0234
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>401.95</b>	<b>7.89</b>	<b>152.41</b>	<b>2.99</b>	<b>284.16</b>	<b>5.58</b>	<b>0.1957</b>	<b>48.03</b>	<b>0.94</b>	<b>0.0234</b>
491.23	9.15	163.04	3.04	301.26	5.61	0.2308	50.04	0.93	0.0235
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>491.23</b>	<b>9.15</b>	<b>163.04</b>	<b>3.04</b>	<b>301.26</b>	<b>5.61</b>	<b>0.2308</b>	<b>50.04</b>	<b>0.93</b>	<b>0.0235</b>
488.01	9.09	160.24	2.98	296.34	5.52	0.2271	49.63	0.92	0.0231
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>488.01</b>	<b>9.09</b>	<b>160.24</b>	<b>2.98</b>	<b>296.34</b>	<b>5.52</b>	<b>0.2271</b>	<b>49.63</b>	<b>0.92</b>	<b>0.0231</b>
515.24	9.19	170.15	3.04	332.69	5.94	0.2240	52.21	0.93	0.0227
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>515.24</b>	<b>9.19</b>	<b>170.15</b>	<b>3.04</b>	<b>332.69</b>	<b>5.94</b>	<b>0.2240</b>	<b>52.21</b>	<b>0.93</b>	<b>0.0227</b>

1-Aug-20 R1 PLFA Functional group Undifferentiated	1-Aug-20 R1 PLFA Functional group Undifferentiated	1-Aug-20 R1 Stress/Community fatty acid activity ratios Sat FA/Unsat FA	1-Aug-20 R1 Stress/Community fatty acid activity ratios Mono FA/Poly FA	1-Aug-20 R1 Stress/Community fatty acid activity ratios Pre 16/Pre 17	1-Aug-20 R1 Stress/Community fatty acid activity ratios Pre 18/Pre 19	12-Nov-20 Harvest plant density x1000	12-Nov-20 Harvest plant lodging %
ng/g	% of biomass	s/u	m/p	16/17	18/19		
2589.36	50.84	2.5390	10.4563	6.9958	6.8953	33.4	10.0
n/a	n/a	n/a	n/a	n/a	n/a	33.5	10.0
n/a	n/a	n/a	n/a	n/a	n/a	33.4	5.0
n/a	n/a	n/a	n/a	n/a	n/a	33.4	5.0
<b>2589.36</b>	<b>50.84</b>	<b>2.5390</b>	<b>10.4563</b>	<b>6.9958</b>	<b>6.8953</b>	<b>33.4</b>	<b>7.5</b>
2701.63	50.30	2.6005	10.1630	7.0852	6.8896	33.5	5.0
n/a	n/a	n/a	n/a	n/a	n/a	33.6	10.0
n/a	n/a	n/a	n/a	n/a	n/a	33.6	10.0
n/a	n/a	n/a	n/a	n/a	n/a	33.5	5.0
<b>2701.63</b>	<b>50.30</b>	<b>2.6005</b>	<b>10.1630</b>	<b>7.0852</b>	<b>6.8896</b>	<b>33.6</b>	<b>7.5</b>
2684.01	49.98	2.6315	10.9632	7.0328	7.0885	33.3	5.0
n/a	n/a	n/a	n/a	n/a	n/a	33.6	10.0
n/a	n/a	n/a	n/a	n/a	n/a	33.4	5.0
n/a	n/a	n/a	n/a	n/a	n/a	33.5	10.0
<b>2684.01</b>	<b>49.98</b>	<b>2.6315</b>	<b>10.9632</b>	<b>7.0328</b>	<b>7.0885</b>	<b>33.5</b>	<b>7.5</b>
2736.24	48.83	2.6415	11.0630	7.0936	7.1124	33.7	10.0
n/a	n/a	n/a	n/a	n/a	n/a	33.6	5.0
n/a	n/a	n/a	n/a	n/a	n/a	33.7	10.0
n/a	n/a	n/a	n/a	n/a	n/a	33.6	5.0
<b>2736.24</b>	<b>48.83</b>	<b>2.6415</b>	<b>11.0630</b>	<b>7.0936</b>	<b>7.1124</b>	<b>33.7</b>	<b>7.5</b>