

## APPENDIX 5

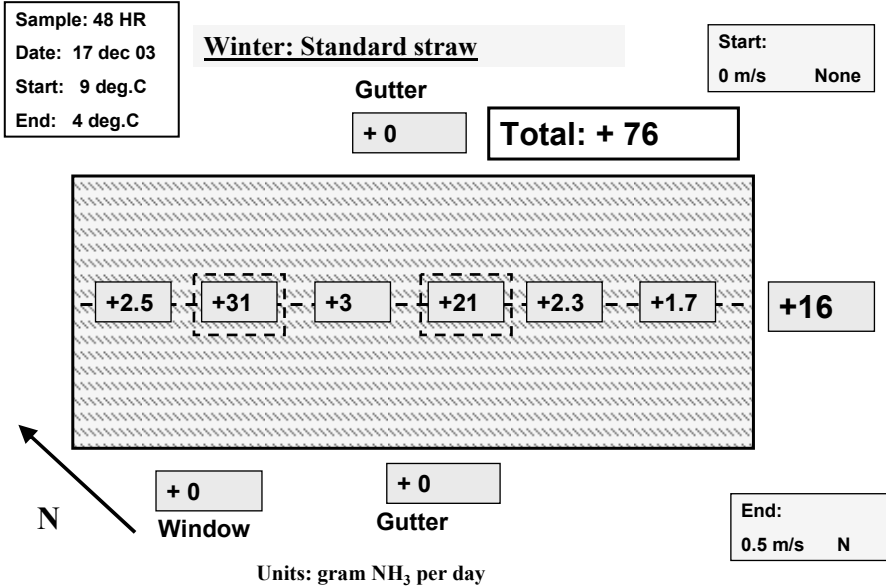
### Results for trials at Warstone Farm, Halesowen

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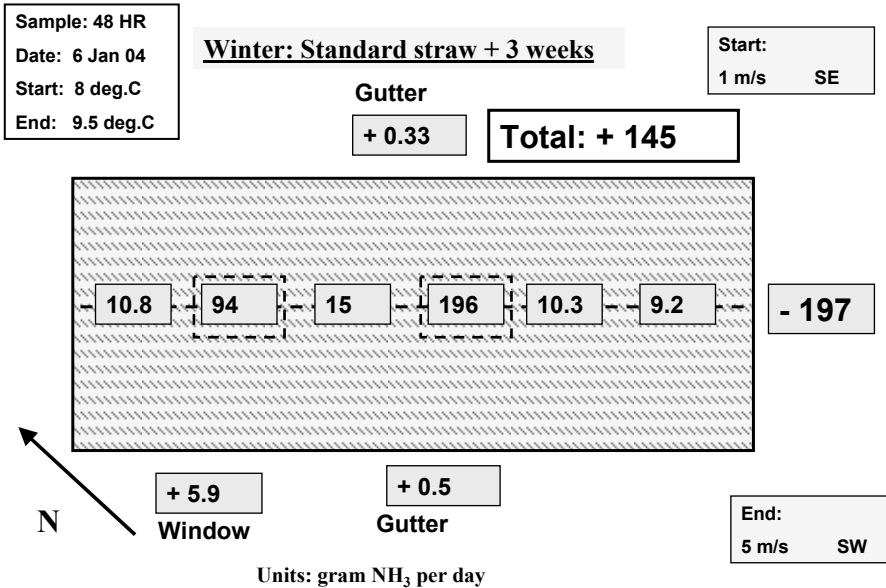
#### Schedule and straw level

<b>Series 1:</b>	<b>even straw/standard</b>	<b>Jan 2004</b>
<b>Series 2:</b>	<b>even straw/200% standard</b>	<b>Feb 2004</b>
<b>Series 3:</b>	<b>even straw/150% standard</b>	<b>Mar 2004</b>
<b>Series 4:</b>	<b>targeted straw/standard</b>	<b>June 2004</b>
<b>Series 5:</b>	<b>targeted straw/200% standard</b>	<b>Aug 2004</b>
<b>Series 6:</b>	<b>targeted straw/150% standard</b>	<b>Dec 2005</b>

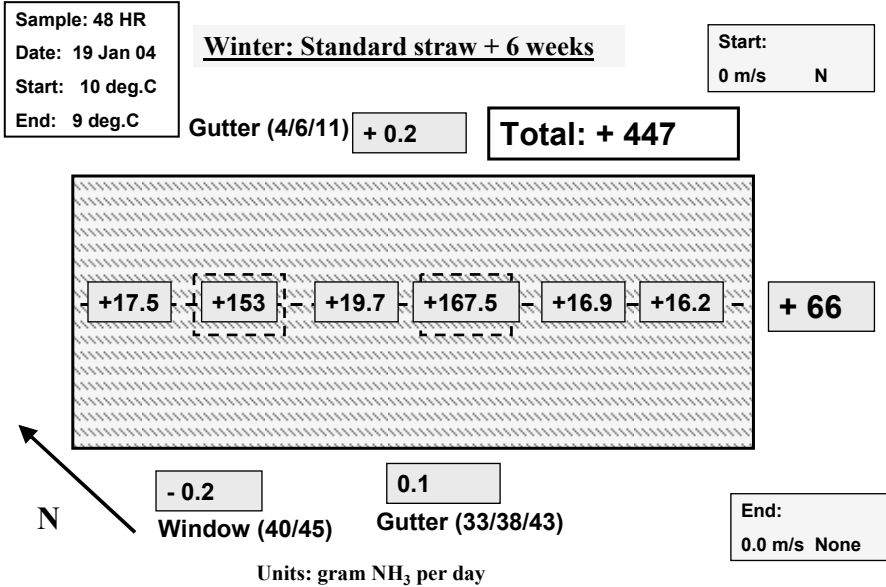
## Results – Halesowen 1#1



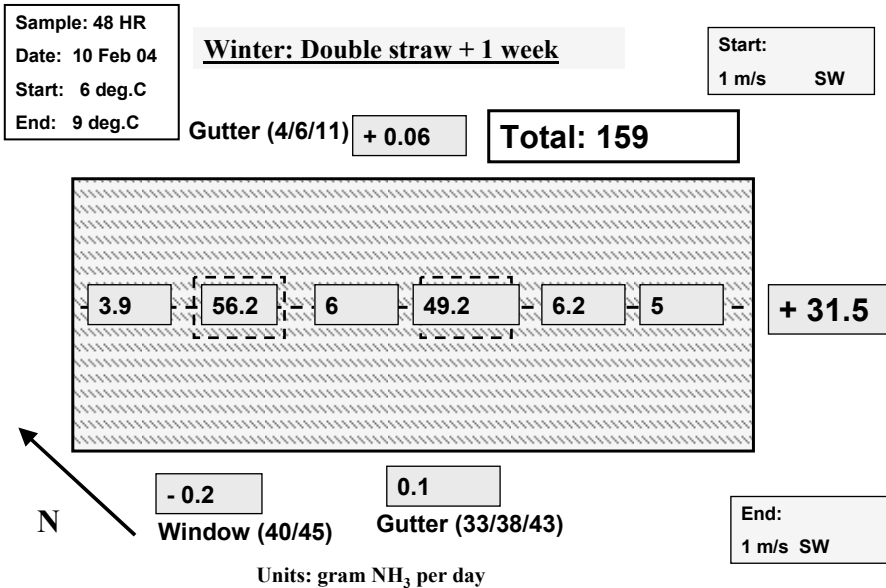
## Results – Halesowen 1#2



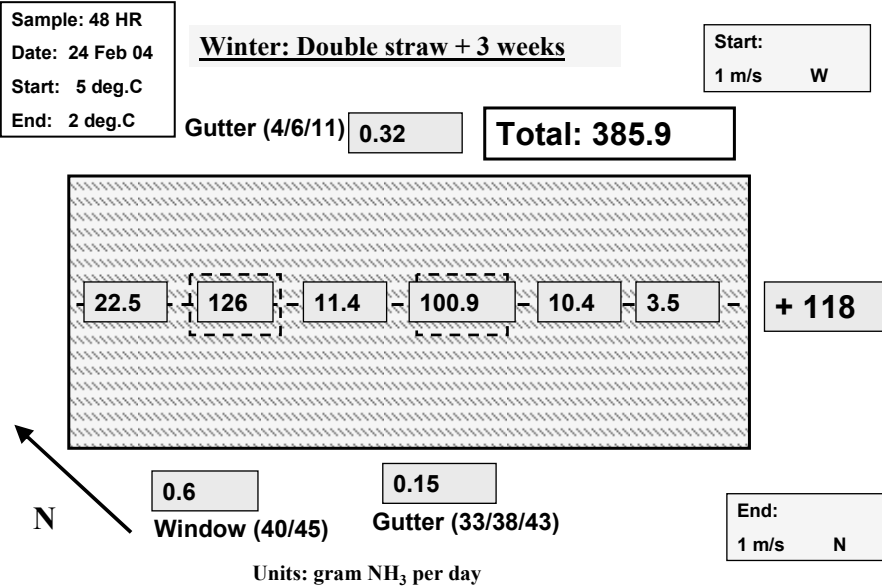
## Results – Halesowen 1#3



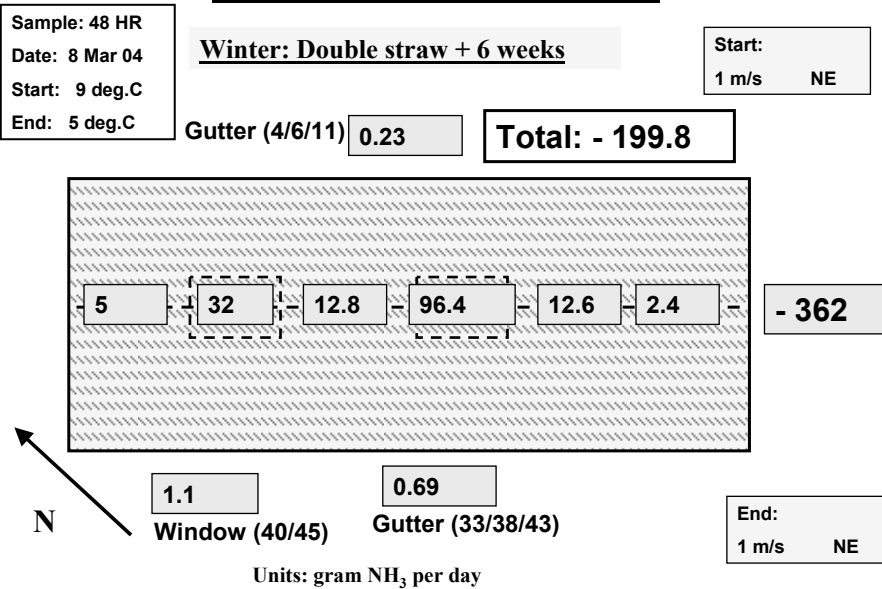
## Results – Halesowen 2#1



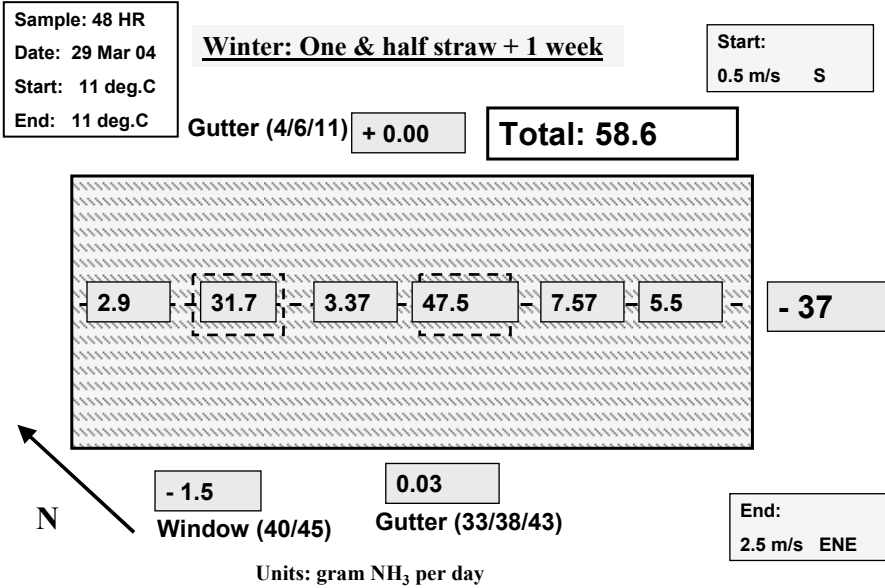
## Results – Halesowen 2#2



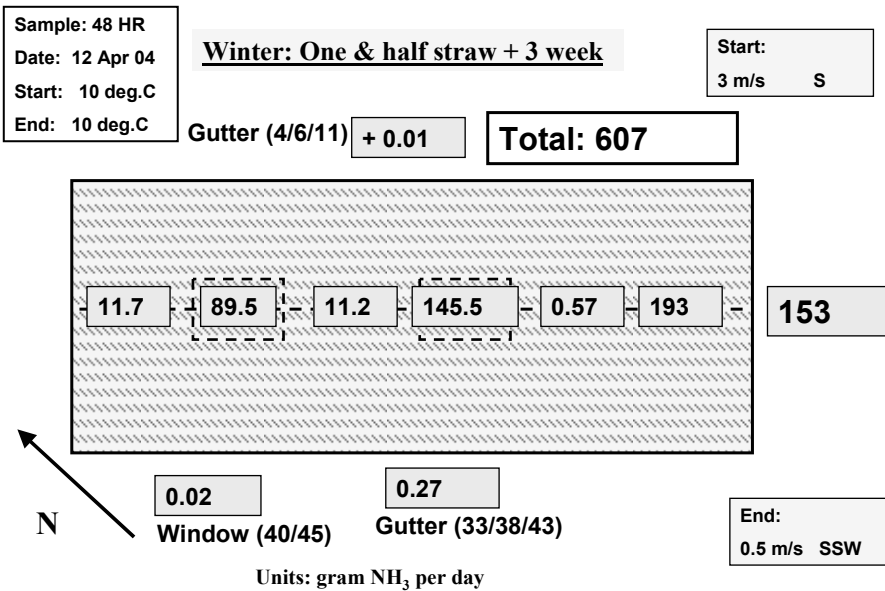
## Results – Halesowen 2#3



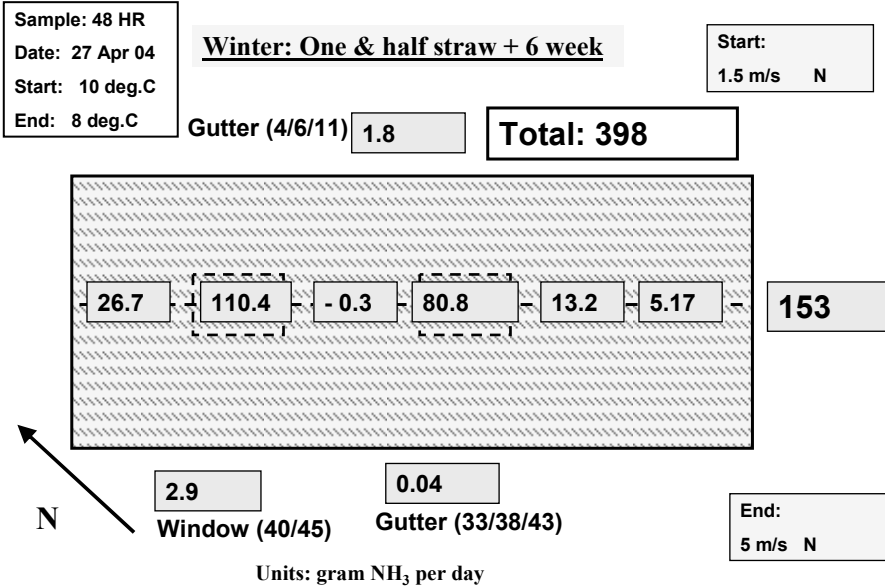
## Results – Halesowen 3#1



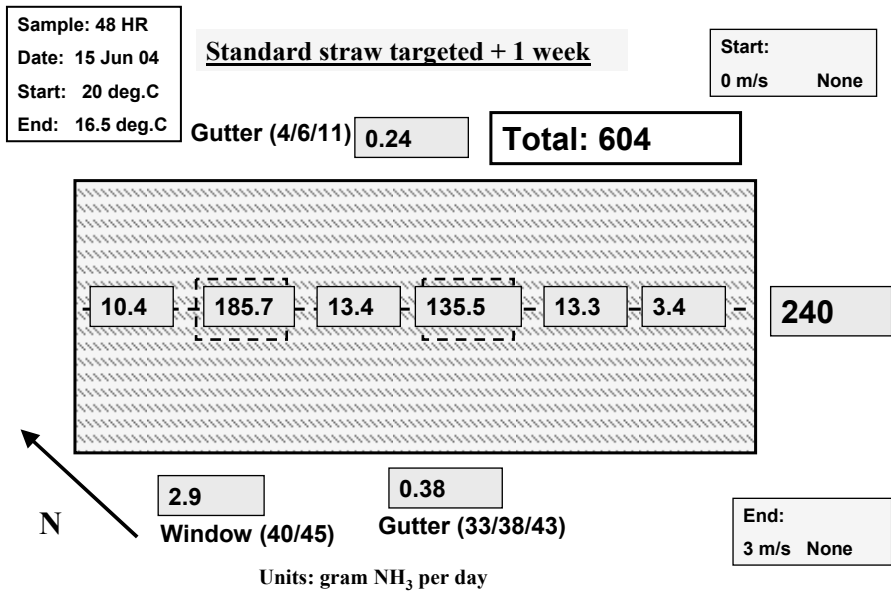
## Results – Halesowen 3#2



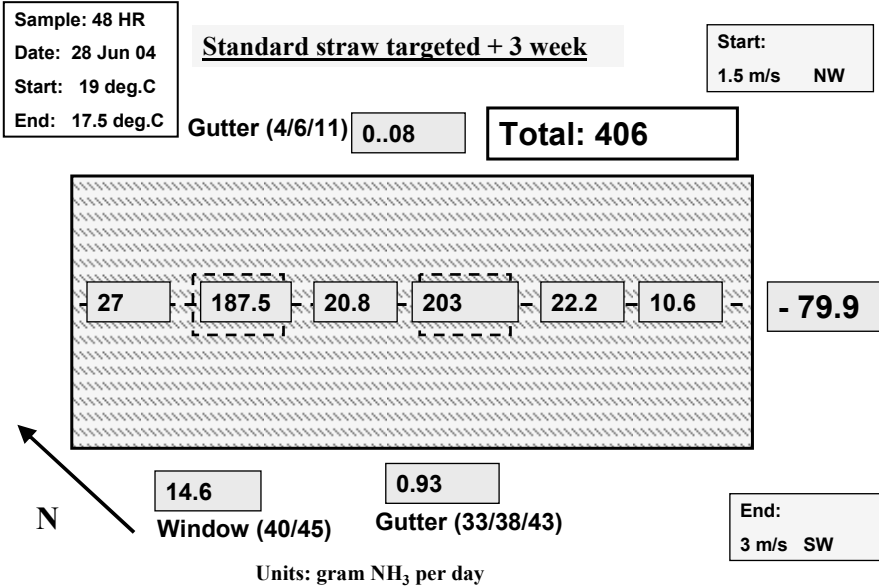
## Results – Halesowen 3#3



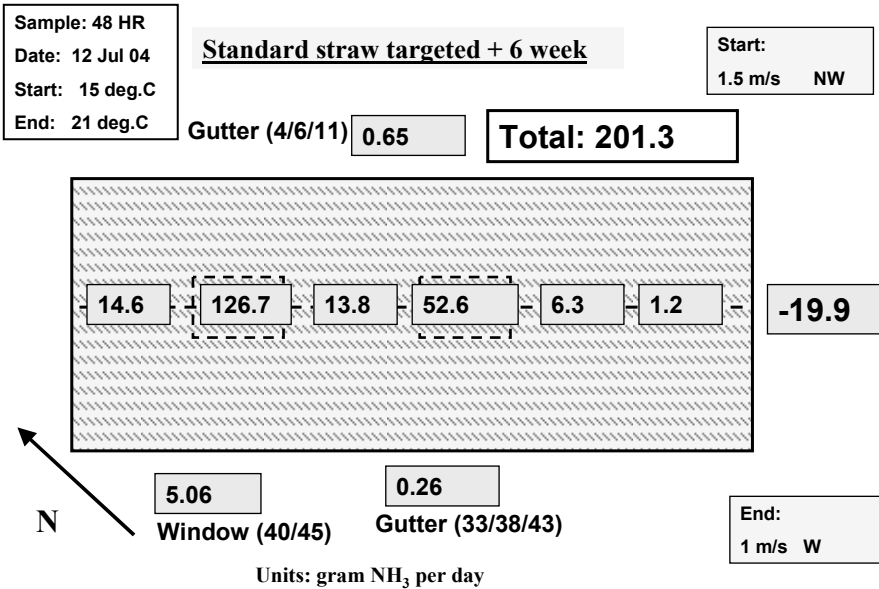
## Results – Halesowen 4#1



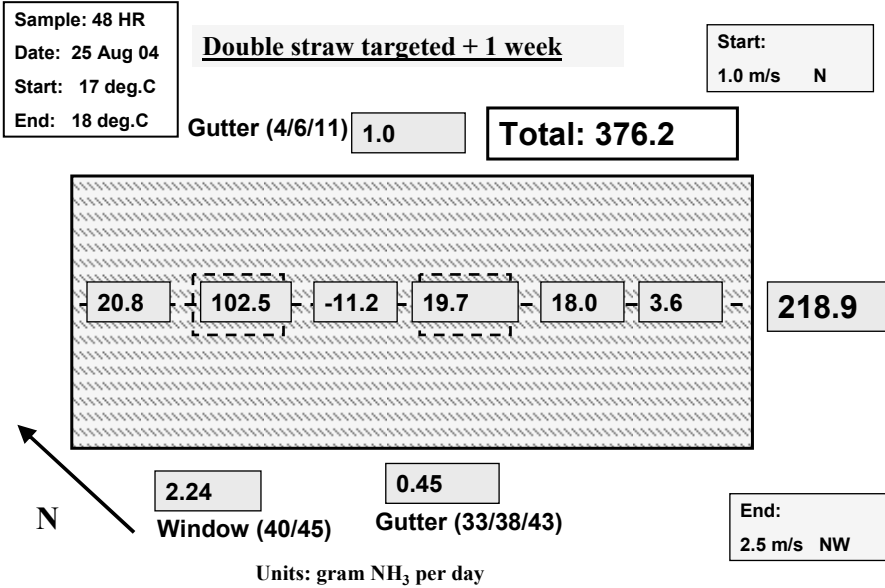
## Results – Halesowen 4#2



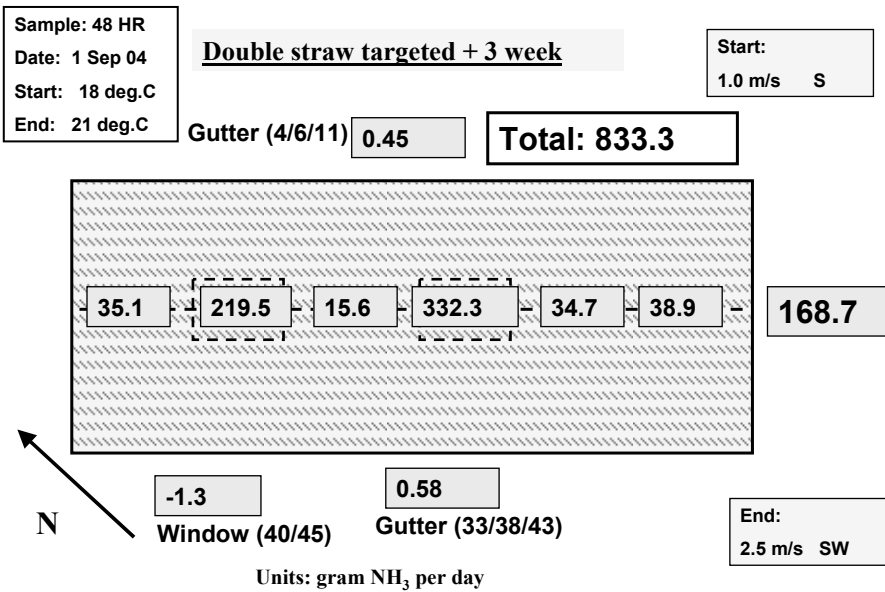
## Results – Halesowen 4#3



## Results – Halesowen 5#1



## Results – Halesowen 5#2





## Results – Halesowen 5#3

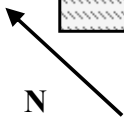
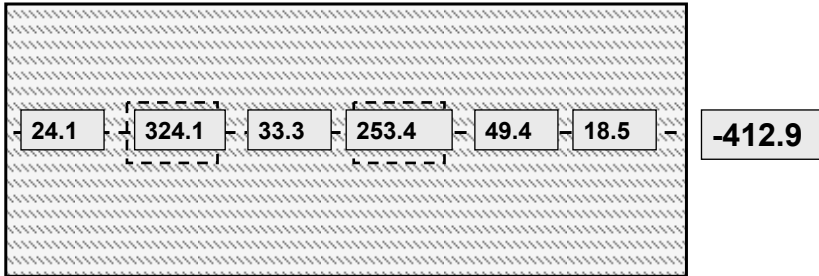
Sample: 48 HR  
 Date: 13 Sep 04  
 Start: 11.5 deg.C  
 End: 16 deg.C

Double straw targeted + 6 week

Start:  
6.0 m/s W

Gutter (4/6/11) 1.56

**Total: 324.5**



Window (40/45) 31.0  
 Gutter (33/38/43) 1.9

End:  
2.0 m/s W to NW

Units: gram NH<sub>3</sub> per day

## Results – Halesowen 6#1

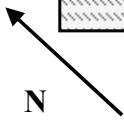
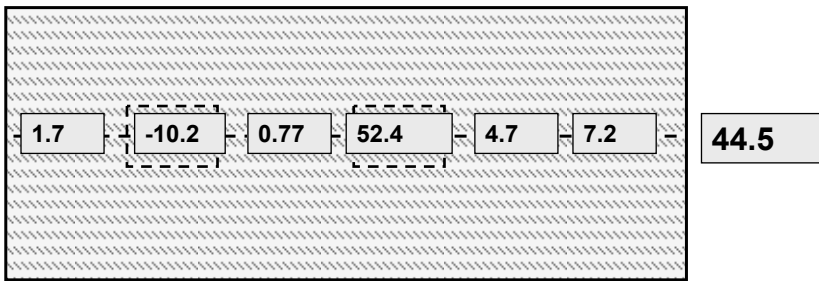
Sample: 48 HR  
 Date: 30 Nov 04  
 Start: 7 deg.C  
 End: 7 deg.C

One and half straw targeted + 1 week

Start:  
1.0 m/s E

Gutter (4/6/11) 0

**Total: 100.8**



Window (40/45) -0.2  
 Gutter (33/38/43) 0.01

End:  
0 m/s None

Units: gram NH<sub>3</sub> per day

## Results – Halesowen 6#2

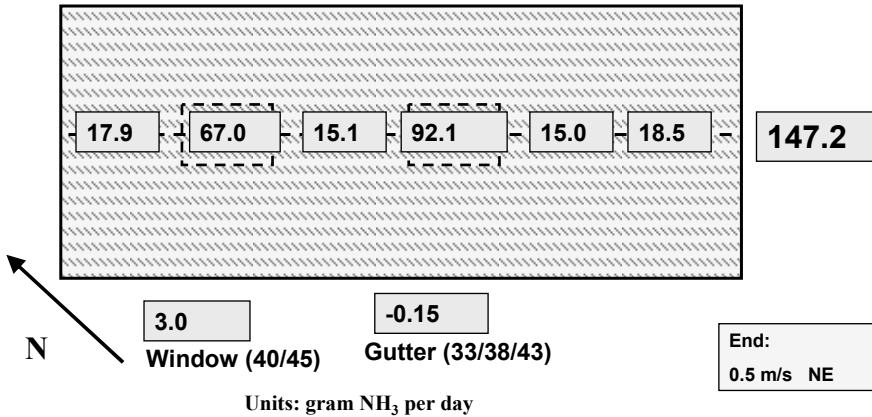
Sample: 48 HR  
 Date: 13 Dec 04  
 Start: 6 deg.C  
 End: 4.5 deg.C

One and half straw targeted + 3 week

Start:  
 0.5 m/s N

Gutter (4/6/11) 0.15

**Total: 374.9**



## Results – Halesowen 6#3

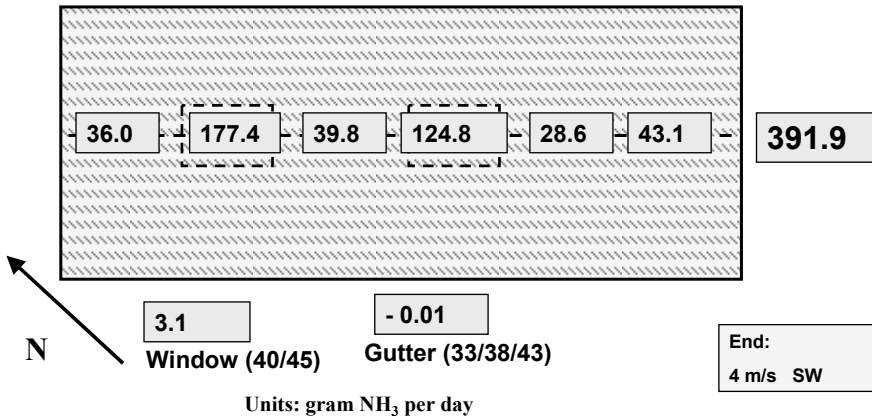
Sample: 48 HR  
 Date: 04 Jan 05  
 Start: 9 deg.C  
 End: 10.5 deg.C

One and half straw targeted + 6 week

Start:  
 1 m/s SW

Gutter (4/6/11) 0.32

**Total: 845.1**



## Bedding conditions

Trial 1/1	Bedding condition*	Surface temperature deg.C				mean	Sub- surface temp	Straw depth mm
		1	2	3	4			
Position A	1	4	4	3	5	4	6	15
Position B	1	6	8	5	7	7	6	25
Position C	1	6	8	6	11	8	10	40
Position D	1	4	5	6	5	5	8	50
Position E	1	4	5	5	5	5	9	80
<b>Mean</b>	<b>1.0</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>8</b>	<b>42</b>

one big bale every second day

**Trial 1/2** No data on bedding conditions

Trial 1/3	Bedding condition*	Surface temperature deg.C				mean	Sub- surface temp	Straw depth mm
		1	2	3	4			
Position A	2	18	20	16	18	18	16	70
Position B	2	17	15	16	17	16	18	230
Position C	2	16	15	17	17	16	14	240
Position D	2	17	17	16	16	17	14	110
Position E	2	11	12	12	12	12	11	0
<b>Mean</b>	<b>2.0</b>	<b>16</b>	<b>16</b>	<b>15</b>	<b>16</b>	<b>16</b>	<b>15</b>	<b>130</b>

one big bale every second day

Trial 2/1	Bedding condition*	Surface temperature deg.C				mean	Sub- surface temp	Straw depth mm
		1	2	3	4			
Position A	1	17	17	18	18	18	10	90
Position B	1	16	16	14	17	16	10	90
Position C	1	15	15	17	16	16	10	100
Position D	1	15	15	14	14	15	9	60
Position E	1	12	12	12	12	12	7	3
<b>Mean</b>	<b>1.0</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>69</b>

two bales every second day

Trial 2/2	Bedding condition*	Surface temperature deg.C				mean	Sub- surface temp	Straw depth mm
		1	2	3	4			
Position A	0	12	13	13	14	13	14	110
Position B	1	10	10	10	10	10	27	170
Position C	1	9	9	9	9	9	12	156
Position D	2	7	7	7	7	7	9	64
Position E	3	6	6	6	6	6	6	14
<b>Mean</b>	<b>1.4</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>14</b>	<b>103</b>

two bales every second day

Trial 2/3	Bedding condition*	Surface temperature deg.C				mean	Sub- surface temp	Straw depth mm
		1	2	3	4			
Position A	0	11	11	13	9	11	19	180
Position B	1	14	14	13	18	15	28	160
Position C	2	12	12	12	12	12	17	160
Position D	1	18	14	12	12	14	25	140
Position E	1	10	10	9	8	9	12	20
<b>Mean</b>	<b>1.0</b>	<b>13</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>20</b>	<b>132</b>

two bales every second day

## Bedding conditions

Trial 3/1	Bedding condition*	Surface temperature deg.C					mean	Sub- surface temp	Straw depth mm
		1	2	3	4				
Position A	1	21	21	21	21	21	27	101	
Position B	0	21	21	22	22	22	21	107	
Position C	0	22	22	22	23	22	28	149	
Position D	1	20	20	20	20	20	19	74	
Position E	2	16	16	16	17	16	14	2	
<b>Mean</b>	<b>0.8</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>21</b>	<b>20</b>	<b>22</b>	<b>87</b>	
one and a half bales every second day									

Trial 3/2	Bedding condition*	Surface temperature deg.C					mean	Sub- surface temp	Straw depth mm
		1	2	3	4				
Position A	1	23	23	19	23	22	17	166	
Position B	1	34	26	20	25	26	19	175	
Position C	3	24	23	25	22	24	16	185	
Position D	4	17	17	16	15	16	14	135	
Position E	2	14	14	15	15	15	14	30	
<b>Mean</b>	<b>2.2</b>	<b>22</b>	<b>21</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>16</b>	<b>138</b>	
one and a half bales every second day									

Trial 3/3	Bedding condition*	Surface temperature deg.C					mean	Sub- surface temp	Straw depth mm
		1	2	3	4				
Position A	0	25	24	23	23	24	35	210	
Position B	2	23	24	23	23	23	25	230	
Position C	2	23	21	21	21	22	23	220	
Position D	2	21	21	22	22	22	20	150	
Position E	2	20	20	21	19	20	16	30	
<b>Mean</b>	<b>1.6</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>24</b>	<b>168</b>	
one and a half bales every second day									

Trial 4/1	Bedding condition*	Surface temperature deg.C					mean	Sub- surface temp	Straw depth mm
		1	2	3	4				
Position A	0	27	27	27	27	27	25	70	
Position B	0	26	26	27	27	27	28	65	
Position C	0	26	26	26	27	26	24	30	
Position D	0	25	25	26	26	26	24	12	
Position E	2	23	23	23	24	23	21	6	
<b>Mean</b>	<b>0.4</b>	<b>25</b>	<b>25</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>24</b>	<b>37</b>	
standard targetted									

Trial 4/2	Bedding condition*	Surface temperature deg.C					mean	Sub- surface temp	Straw depth mm
		1	2	3	4				
Position A	0	27	26	29	27	27	32	160	
Position B	0	27	26	26	25	26	26	190	
Position C	0	24	25	26	26	25	27	145	
Position D	2	22	23	24	26	24	22	115	
Position E	1	21	23	23	24	23	18	15	
<b>Mean</b>	<b>0.6</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>26</b>	<b>25</b>	<b>25</b>	<b>125</b>	
standard targetted									

Trial 4/3	Bedding condition*	Surface temperature deg.C					mean	Sub- surface temp	Straw depth mm
		1	2	3	4				
Position A	0	25	24	24	22	24	36	240	
Position B	1	23	24	24	26	24	26	240	
Position C	0	24	24	23	25	24	26	300	
Position D	0	23	23	23	22	23	27	270	
Position E	3	20	20	21	21	21	19	70	
<b>Mean</b>	<b>0.8</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>27</b>	<b>224</b>	
standard targetted									

## Bedding conditions

Trial	Bedding condition*	Surface temperature deg.C					mean	Sub-surface temp	Straw depth mm
		1	2	3	4				
Position A	1	27	27	23	26	26	23	95	
Position B	1	28	29	27	27	28	27	115	
Position C	1	24	24	25	25	25	24	150	
Position D	2	26	25	24	26	25	23	130	
Position E	3	23	23	23	22	23	19	20	
<b>Mean</b>	<b>1.6</b>	<b>26</b>	<b>26</b>	<b>24</b>	<b>25</b>	<b>25</b>	<b>23</b>	<b>102</b>	
double standard targetted									

Trial	Bedding condition*	Surface temperature deg.C					mean	Sub-surface temp	Straw depth mm
		1	2	3	4				
Position A	0	29	30	31	33	31	29	190	
Position B	1	33	30	31	30	31	30	200	
Position C	1	31	31	34	31	32	31	200	
Position D	1	33	33	34	35	34	32	200	
Position E	0	37	36	35	35	36	25	5	
<b>Mean</b>	<b>0.6</b>	<b>33</b>	<b>32</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>29</b>	<b>159</b>	
double standard targetted									

Trial	Bedding condition*	Surface temperature deg.C					mean	Sub-surface temp	Straw depth mm
		1	2	3	4				
Position A	0	23	24	24	25	24	28	160	
Position B	1	23	21	23	23	23	29	250	
Position C	1	21	23	22	22	22	27	220	
Position D	1	22	25	22	21	23	28	230	
Position E	1	21	21	20	21	21	33	135	
<b>Mean</b>	<b>0.8</b>	<b>22</b>	<b>23</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>29</b>	<b>199</b>	
double standard targetted									

Trial	Bedding condition*	Surface temperature deg.C					mean	Sub-surface temp	Straw depth mm
		1	2	3	4				
Position A	3	13	13	12	12	13	10	55	
Position B	1	14	15	15	15	15	12	60	
Position C	1	14	14	14	14	14	13	65	
Position D	3	13	14	14	14	14	12	40	
Position E	3	10	13	12	12	12	9	90	
<b>Mean</b>	<b>2.2</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>11</b>	<b>62</b>	
1.5 times standard targetted									

Trial	Bedding condition*	Surface temperature deg.C					mean	Sub-surface temp	Straw depth mm
		1	2	3	4				
Position A	0	13	13	15	15	14	22	120	
Position B	0	16	16	16	17	16	22	110	
Position C	1	13	14	14	14	14	20	200	
Position D	2	15	13	14	14	14	16	170	
Position E	0	11	12	10	10	11	11	70	
<b>Mean</b>	<b>0.6</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>18</b>	<b>134</b>	
1.5 times standard targetted									

Trial	Bedding condition*	Surface temperature deg.C					mean	Sub-surface temp	Straw depth mm
		1	2	3	4				
Position A	0	20	20	20	21	20	29	180	
Position B	1	19	18	21	17	19	41	270	
Position C	2	16	16	17	17	17	26	270	
Position D	2	14	14	14	14	14	16	250	
Position E	2	12	12	13	13	13	11	100	
<b>Mean</b>	<b>1.4</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>16</b>	<b>16</b>	<b>25</b>	<b>214</b>	
1.5 times standard targetted									

