

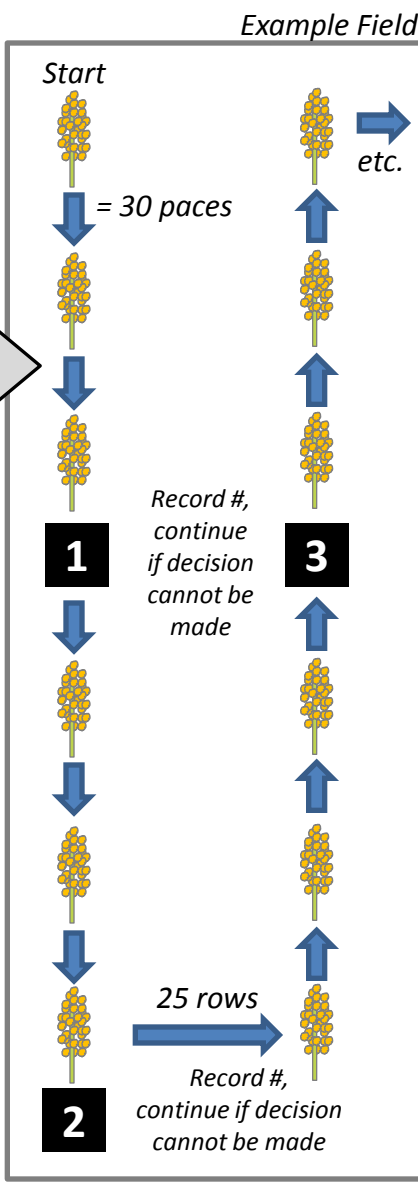
Sorghum Headworm Quick Count Sampling Plan

The Sorghum Headworm Decision Support System can help you identify sorghum pests, learn more about their biology, and determine the economic threshold for headworms in your sorghum field. You can print out other sequential sampling forms for use in sampling your field.

Go to entopl.okstate.edu/shweb/index.htm for more forms!

Directions for using the Quick Count:

1. Walk at least 15-20 feet into the sorghum field to begin sampling in one row.
2. Grasp the stalk just below the emerged sorghum head, bend the head into the bucket opening and vigorously beat the head against the side of the bucket where they can be seen and counted.
3. Walk 30 paces down the row and sample another head, then walk 30 more paces and sample another head in the same row.
4. After sampling 3 plants, stop, count and record the total number of medium size ($\frac{1}{4}$ - $\frac{1}{2}$ inches long) and large (greater than $\frac{1}{2}$ inches long) headworm caterpillars in the bucket. Ignore all caterpillars less than $\frac{1}{4}$ inches long. If there are mostly large caterpillars, use the Large Threshold. If there are mostly Medium-sized caterpillars, use the Medium Threshold. If there are about 50% large and medium, use the Mixed Threshold.
5. Sample 3 more plants in the same row and add the counts from the previous 3 plants, and add the caterpillar totals.
6. After sampling 6 plants within a row, move over 25 rows and continue the process for each 6 heads.
7. Compare counts with numbers in red (right) and green (left) boxes. If they equal or exceed the "Treat" box, then stop and treat. If they equal or are lower than the "Don't Treat Box, then stop sampling and Don't Treat. If they fall in the yellow "sample" box, keep sampling until you have sampled 48 heads. If you still can't make a decision at Stop #16, return in 3 days and resample the field.



The information in this sampling guide was developed in collaboration by:

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Use Caterpillar Size from First 3 Heads to Choose Threshold Below

Stop #	3 more heads + Previous total = New total	Large			Medium			Mixed		
		Do Not Treat	Sample 3 More Heads	Treat Field	Do Not Treat	Sample 3 More Heads	Treat Field	Do Not Treat	Sample 3 More Heads	Treat Field
1	First 3 heads <input type="text"/>	---	0 to 11	12 or more	---	0 to 43	44 or more	---	0 to 23	24 or more
2	<input type="text"/> + <input type="text"/> = <input type="text"/>	---	0 to 15	16 or more	18 or less	19 to 66	67 or more	6 or less	7 to 35	36 or more
3	<input type="text"/> + <input type="text"/> = <input type="text"/>	3 or less	4 to 20	21 or more	41 or less	42 to 90	91 or more	18 or less	19 to 47	48 or more
4	<input type="text"/> + <input type="text"/> = <input type="text"/>	7 or less	8 to 24	25 or more	65 or less	66 to 113	114 or more	29 or less	30 to 58	59 or more
5	<input type="text"/> + <input type="text"/> = <input type="text"/>	12 or less	13 to 29	30 or more	88 or less	89 to 136	137 or more	41 or less	42 to 70	71 or more
6	<input type="text"/> + <input type="text"/> = <input type="text"/>	16 or less	17 to 33	34 or more	111 or less	112 to 160	161 or more	53 or less	54 to 82	83 or more
7	<input type="text"/> + <input type="text"/> = <input type="text"/>	21 or less	22 to 38	39 or more	135 or less	136 to 183	184 or more	64 or less	65 to 93	94 or more
8	<input type="text"/> + <input type="text"/> = <input type="text"/>	25 or less	26 to 42	43 or more	158 or less	159 to 206	207 or more	76 or less	77 to 105	106 or more
9	<input type="text"/> + <input type="text"/> = <input type="text"/>	30 or less	31 to 47	48 or more	181 or less	182 to 230	231 or more	88 or less	89 to 117	118 or more
10	<input type="text"/> + <input type="text"/> = <input type="text"/>	34 or less	35 to 51	52 or more	205 or less	206 to 253	254 or more	99 or less	100 to 128	129 or more
11	<input type="text"/> + <input type="text"/> = <input type="text"/>	38 or less	39 to 55	56 or more	228 or less	229 to 276	277 or more	111 or less	112 to 140	141 or more
12	<input type="text"/> + <input type="text"/> = <input type="text"/>	43 or less	44 to 60	61 or more	251 or less	252 to 300	301 or more	123 or less	124 to 152	153 or more
13	<input type="text"/> + <input type="text"/> = <input type="text"/>	47 or less	48 to 64	65 or more	275 or less	276 to 323	324 or more	134 or less	135 to 163	164 or more
14	<input type="text"/> + <input type="text"/> = <input type="text"/>	52 or less	53 to 69	70 or more	298 or less	299 to 346	347 or more	146 or less	147 to 175	176 or more
15	<input type="text"/> + <input type="text"/> = <input type="text"/>	56 or less	57 to 73	74 or more	321 or less	322 to 370	371 or more	158 or less	159 to 187	188 or more
16	<input type="text"/> + <input type="text"/> = <input type="text"/>	61 or less	62 to 78	79 or more	345 or less	346 to 393	394 or more	169 or less	170 to 198	199 or more
		Economic Threshold for LARGE Headworms: THRESHOLD = 1.50/HEAD			Economic Threshold for MEDIUM Headworms: THRESHOLD = 7.90/HEAD			Economic Threshold for MIXED Headworms: THRESHOLD = 4.70/HEAD		

If you still can't make a decision at Stop #16, then return in 3 days and resample the field.