DEAD BIRD COMPOSTER SIZING WORKSHEET

Conservation District:_____ Field Office:_____

Cooperator: _____ Location: _____

B = No. of birds on farm = _____

M = Anticipated mortality for flock, as decimal *(NOTE: Mortality may range from 3-5% for broilers, up to 18% for breeders. Use actual data or use Poultry Waste Data Table 1 – GA-ENG-313T1.)*

W_S = Weight of birds near maturity, lbs. (ex.: 4.2 lbs for broilers)

T = Life of flock, days (ex.: 42 days for broilers).

W_T = Weight of daily loss

F = Volume factor (1.5 – 2.5)
NOTE: Volume factor is based on local conditions, experiences, and management skills of operator.

$$\mathbf{B} \times \mathbf{M} \times \mathbf{W_s} / \mathbf{T} = \mathbf{W_T}$$

_____ x _____ x _____ / _____ = _____ lbs/day

PRIMARY BINS:

Volume = $\mathbf{V_1}$ = **F** x $\mathbf{W_T}$

= $\mathbf{V_1}$ = _____ x _____ = _____ ft^3

Determine type of composter (Check one):

(A) Standard Bins – Removable wall at entrance _____

(B) Deep Bins – Open at entrance _____

A. Dimensions of Standard Bins:

h = height of bin (4 to 5 ft.) = _____ ft.

$\mathbf{Y_1}$ = depth of bin (6 or 10 ft.) = _____ ft.

$\mathbf{Y_2}$ = width (front) of bin (10 ft.) = _____ ft.

$\mathbf{V_B}$ = individual bin volume = **h** x $\mathbf{Y_1}$ x $\mathbf{Y_2}$

$\mathbf{V_B}$ = _____ x _____ x _____ = _____ ft^3

No. of bins = V_1 / V_B = _____ / _____ = _____ bins

Number of Primary Bins: _____

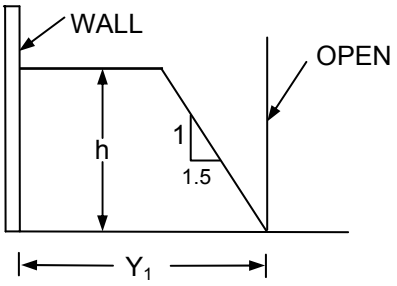
*Note: A minimum of **2** primary bins required for standard bins.*

B. Dimensions of Deep Bins:

h = height of bin (4 to 5 ft.) = _____ ft.

Y_1 = depth of bin (15 to 20 ft.) = _____ ft.

Y_2 = width (front) of bin (10 ft.) = _____ ft.



V_B = individual bin volume = $[(\mathbf{h} \times \mathbf{Y_1}) - (\mathbf{1.5} \times \mathbf{h}^2 / 2)] \times \mathbf{Y_2}$

V_B = [(_____ x _____) - (1.5 x _____^{2} / 2)] x _____ = _____ ft^3

No. of bins = V_1 / V_B = _____ / _____ = _____ bins

Number of Primary Bins: _____

*NOTE: A minimum of **2** primary bins are required for deep bins.*

SECONDARY BINS:

A. Volume shall equal or exceed V_1 = _____

B. Size of Secondary Bins: _____ x _____ x _____

C. Number of Secondary Bins: _____

NOTE: For every primary deep bin, there shall be a secondary bin of equal size.

LITTER STORAGE:

A. Volume shall equal or exceed V_1 = _____

B. Size of litter storage: _____ x _____ x _____

*NOTE: Breeder storage volume shall be **doubled**.*

NOTE: Litter storage is not required if the producer has a litter dry stack structure.

Designed by: _____	Date: _____
Checked by: _____	Date: _____
Approved by: _____	Date: _____
Job Class: _____	