

## Attachment 1 – Trench Size Worksheet for Pre-selecting Livestock Disposal Sites

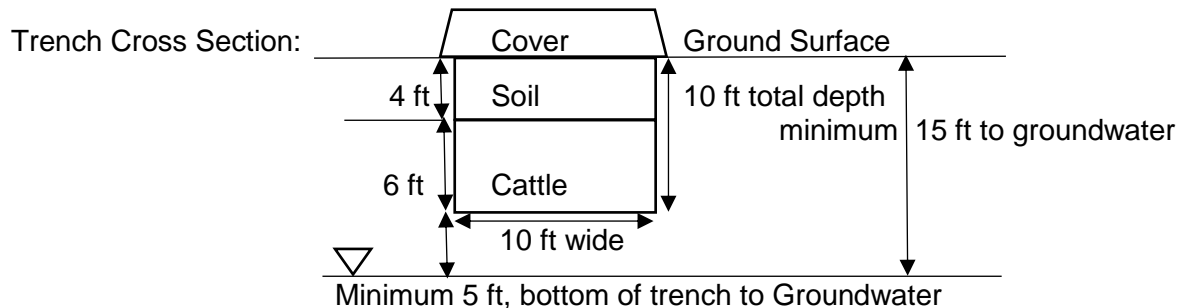
This worksheet intends to give a quick calculation of the size of trench necessary for mass mortality disposal based on number and size of cattle on-site.

For reference, the Standard Animal Unit (SAU) is equivalent to one 1,000 lb steer, which in turn has a volume of approximately 42 cubic feet. The number of SAUs standing on site will dictate the size of the trench needed. For this worksheet Feeder Cattle average 850 lbs, or 0.85 SAU, finished swine average less than 300 lbs or 0.30 SAU. If your cattle are bigger, or your swine smaller, you can adjust the calculation below accordingly. The SAU value of any animal is the average weight divided by 1000. (Averages: Cows 1,200 lbs, Bulls 2,000 lbs, etc.)

Total Cubic Feet of Material Calculation:

- A. Number of Cattle \_\_\_\_\_ x 0.85 = \_\_\_\_\_ SAU  
 Number of Swine \_\_\_\_\_ x 0.30 = \_\_\_\_\_ SAU (add for total SAUs)  
 Total \_\_\_\_\_ SAU
- B. Standing SAU on site \_\_\_\_\_ x 42 cu ft = \_\_\_\_\_ cu ft
- Other contaminated materials such as bedding, manure, decontamination waste, etc. is about 20% of above: \_\_\_\_\_ x 1.20 = \_\_\_\_\_ total ft<sup>3</sup> of material

Trenches should be 10 feet deep and 10 feet wide. The bottom of your trench must be at least 5 feet above groundwater depth. Therefore, you must have minimum depth to groundwater of 15 feet at the burial site. You must also allow for the minimum of 4 feet of burial below ground surface.



- C. Total volume of trench filled with carcasses is 10 feet wide by 6 feet deep (see above). Or 60 square feet in cross section. Therefore, the total length of your trench is the total cu ft of material divided by 60.

(from B above) Total cu ft of material \_\_\_\_\_ / 60 = \_\_\_\_\_ Total length of trench

Example: 200 Cattle = 170 SAU = 7,140 cu ft x 1.20 = 8,568 total cu ft / 60 = 143 foot long trench

If space is short, multiple trenches may be dug side by side; allow at least 18 feet between trenches.