

SHAC[®] Ponder

APPLICATION GUIDE



SHAC[®] Ponder

Improves water quality by decreasing turbidity, organic sludge on the bottom and odors.

SHAC *Ponder* treatment helps to achieve a naturally balanced system by stimulating resident microbes and increasing organic matter decomposition. *Ponder* also provides activated carbon particles which adsorb and reduce the concentration of excessive nutrients and toxins in the water column.



SHAC *Ponder*:

- **Reduces offensive odors in treated water** providing more pleasant drinking water for livestock and humans.
- **Reduces black organic sludge (biosolids) from the bottom of ponds** which is often the nutrient source for aquatic weeds and algae.
- **Reduces cloudy, turbid water** providing clearer water for all uses.
- **Non-toxic**; safe for human and livestock drinking water immediately after application.
- **Certified by National Sanitation Foundation (NSF)** for water treatment applications as a pre-treatment in potable water systems.

SHAC *PONDER* IS DESIGNED FOR:

- farm dugouts and reservoirs
- municipal reservoirs and lakes
- ornamental ponds
- golf course ponds

Pre-application considerations:

Please note: Shake SHAC *Ponder* vigorously before each use and pour in one spot.

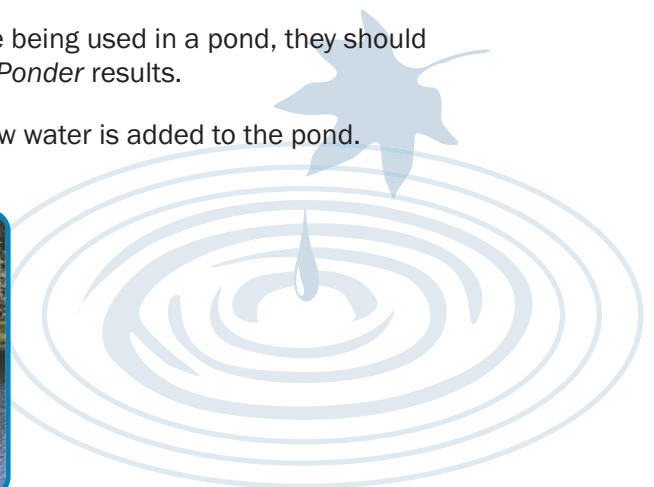
- SHAC *Ponder* should not be used with any other chemicals such as Bluestone (copper sulfate) or herbicides.
- Place reservoir intakes at the top portion (approximately 45 cm (18") deep ponds and 10 cm (4") in shallow ponds) of the water column. The best water quality is typically found here.
- If mechanical devices such as aerators and pumps are being used in a pond, they should be located at the top portion of the pond for optimum *Ponder* results.
- It is important to treat with SHAC *Ponder* each time new water is added to the pond.



Before *Ponder*



After *Ponder*



Application Rates:

Note: Some values have been rounded for ease of use.

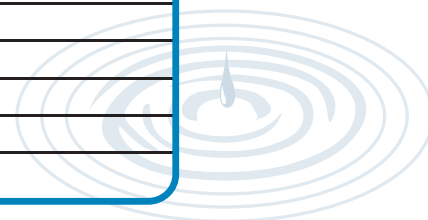
For Large Ponds:

1st Year			2nd Year & Beyond	
Type of Reservoir	First time Treatment rate <i>Ponder</i> (L) 500,000 gal	Maintenance treatment rate <i>Ponder</i> (L) 500,000 gal	Spring treatment rate <i>Ponder</i> (L) 500,000 gal	Maintenance treatment rate <i>Ponder</i> (L) 500,000 gal
Run-off collection	10 L	2-10 L	2-10 L	2-10 L
Golf Course / Storm-water	20 L	10 L	10 L	10 L
Irrigation filled	10 L	2-10 L every refill	2-10 L	2-10 L every refill

Maintenance Rates:

Add 1-2 L per condition to a maximum of 10L *Ponder* / 500,000 gallons every 8-10 weeks of open water.

Pasture run-off OR irrigation filled: Rate altering conditions	Additional <i>Ponder</i> product / Condition for each maintenance treatment
River / creek filled	1L
Filled from standing water (e.g. slough)	2L
Copper Sulfate / hydrated lime used historically	1L
Bermless or ineffective berms	1L
Direct cattle access	2L
Intended for human consumption	2L
Intended for animal consumption	1L
Stocked-fed fish	1L
Surrounded by trees and vegetation	1L
Age of dugout or last dredging is 5 or more years	1L



For Small Ponds:

	Imp. Gal	Litres	US Gal.	
Water Volume	440	2000	530	When to apply:
Initial <i>Ponder</i> (L) Treatment	1L	1L	1L (34 US oz)	Optimally, apply in spring as soon as the ice is off and runoff is in. Use this rate for any first time treatment.
Maintenance <i>Ponder</i> Treatment (ml)	500ml	500ml	500ml (17 US oz)	Apply to pond every 3 months until freeze up.

Quick reference charts for small ponds:

Volume of Pond			Rate: <i>Ponder</i>	
Gallons (Imp)	Litres	Gallons (US)	Initial (Litres)	Maintenance (Litres per application)
500	2300	600	1	0.5
1000	4600	1200	2	1
1500	6800	1800	3.5	2
3000	13,600	3600	7	3.5
5000	22,700	6000	11	6

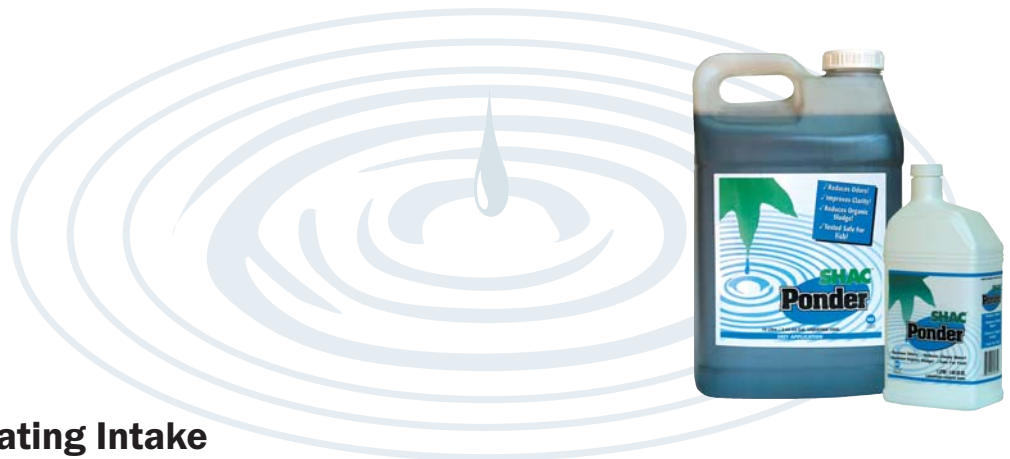
Determining Pond Volume:

NOTE: The following equation is simplified for ease of use and only estimates the actual volume, depending on the slope value used. For a more accurate volume calculation, see the dugout / lagoon calculator on the Alberta Agriculture web site: <http://www.agric.gov.ab.ca/calculator/dugout.html>

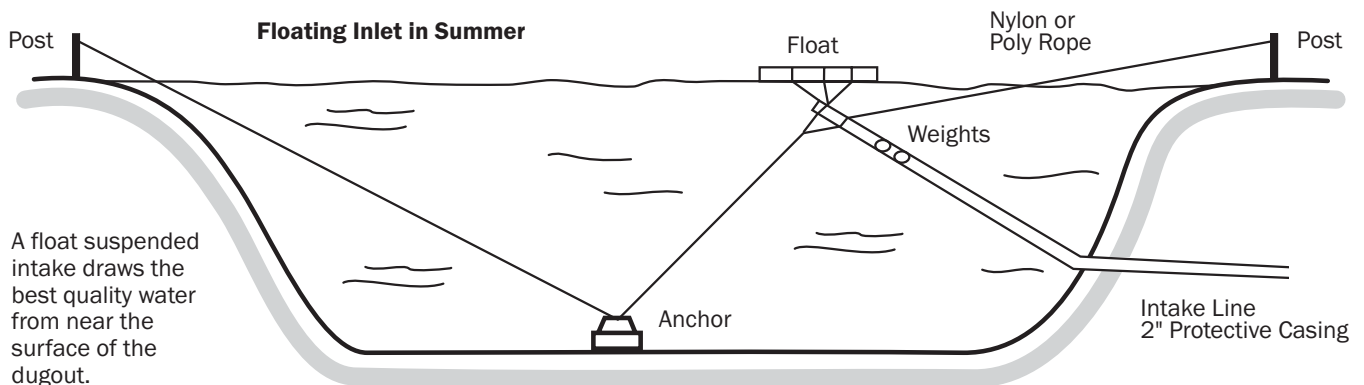
Length X Width X Depth = _____ X 0.7 = _____ AND

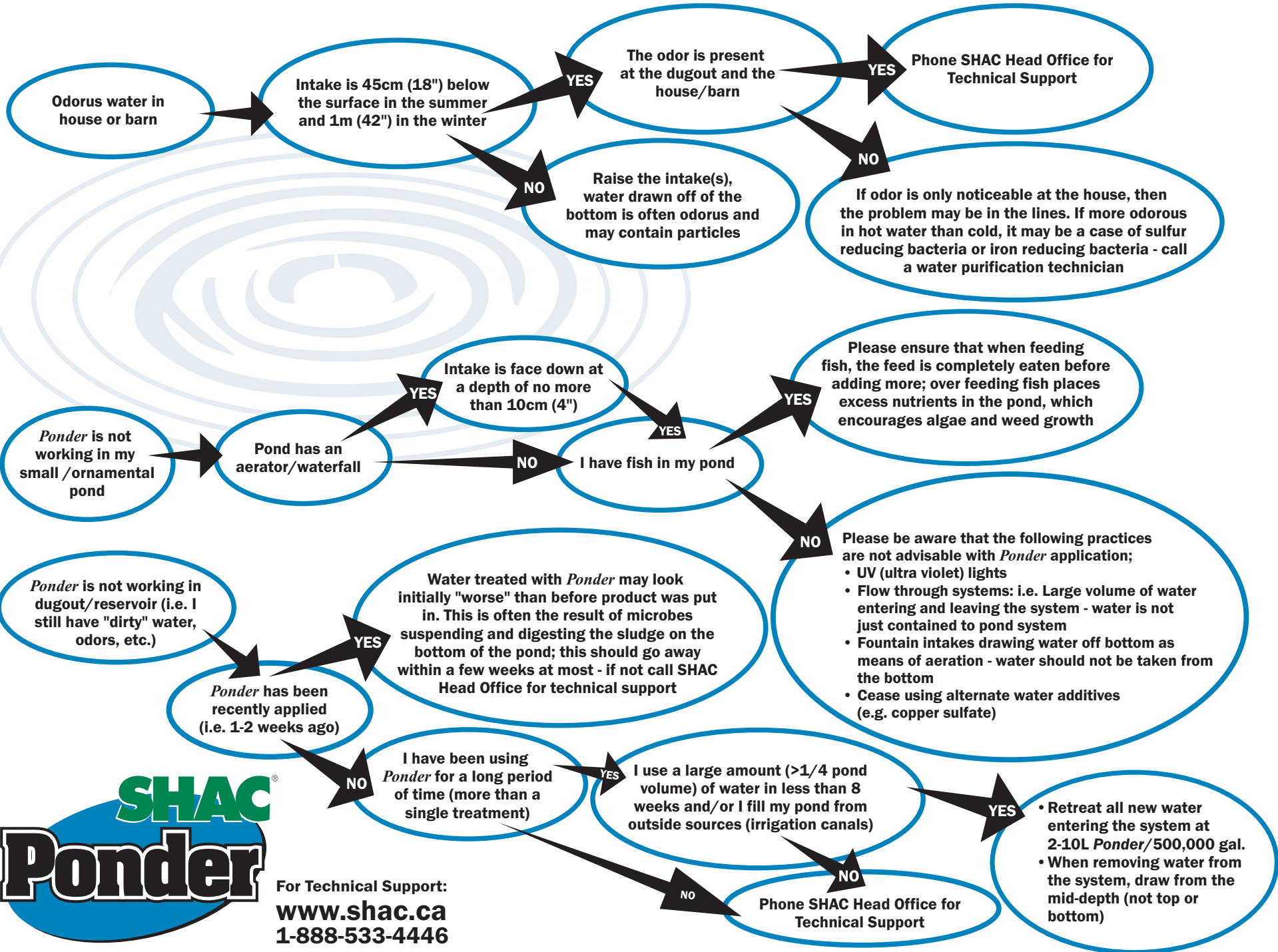
Multiply by:

- 6.25 to convert cubic feet to _____ Imperial gals
- 7.5 to convert to _____ US gallons
- 1000 to convert cubic meters to _____ litres



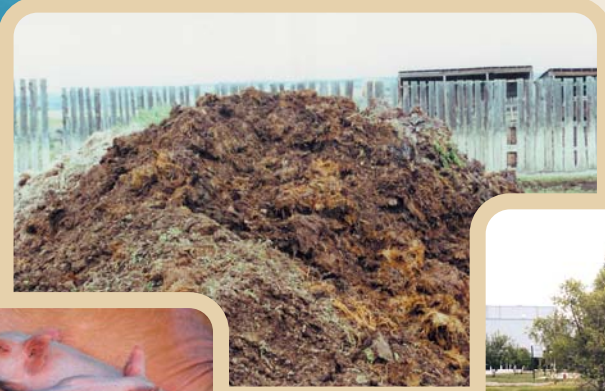
Example of a Floating Intake





For Technical Support:
www.shac.ca
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FOR MORE INFORMATION CONTACT:

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