

Low Cost On-Farm Containment for Pesticide Storage

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Objective:

To design and possibly construct a secondary containment unit for Dow AgroSciences that would satisfy the following requirements:

- Target price of \$500
- 713 gallon capacity
- Compatible with Telone®
- Materials must be readily available
- Must be portable
- Life span of at least 10 years



Summary of Designs

<u>Commercial Designs</u>	<u>Company</u>	<u>Price</u>	<u>Material</u>	<u>Capacity</u> (gal)	<u>Model</u>
Secondary Containment Tank	Etank.com	\$1,065.00	Polyethylene	875	36564
Containment Basin	New Pig	\$1,189.00	"	950	PAK 984-BK

<u>Low-Cost Designs</u>	<u>Price</u>	<u>Liner Material</u>	<u>Capacity</u> (gal)
Metal Stock Tank	\$779.12	Polypropylene	752
Hole-in-the-Ground	\$477.29	"	1062
Hay Feeder Structure	\$812.33	"	1553
Grain Bin Ring Structure	\$1,057.21	"	1222
Wooden Structure	\$607.61	"	859

Design Characteristics

	<u>Drainage</u>	<u>Capacity</u>	<u>Assembly Time</u>	<u>Price</u>	<u>All Material Compatibility</u>
Metal Stock Tank	+	+	+	+	-
Hole-in-the-Ground	-	+	-	++	+
Hay Feeder Structure	+	+	+	+	-
Grain Bin Ring Structure	+	+	+	-	-
Wooden Structure	+	+	-	+	?