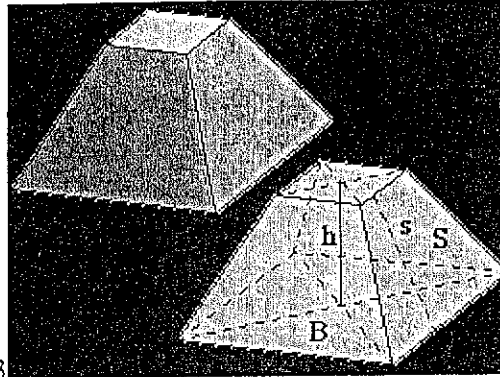


Dreisbach - Hilltop Cold Storage Pond Capacities

Density of liquid (water) = 62.4 Lbs/cuft

Weight of One US Gallon Water = 8.33 Lbs

One cuft of water = $62.4 / 8.33 = 7.49$ US Gallons of water



$$V = h(B_1 + B_2 + \sqrt{B_1 B_2}) / 3$$

Pond B

$$h = 6' \quad B_1 = 191' \times 46', \quad B_2 = 212' \times 64'$$

$$V = 6(8786 + 13568 + \sqrt{8786 * 13568}) / 3 \quad V = 6(22354 + 10918) / 3$$

$$V = (6 * 33272) / 3 \quad V = 199632 / 3$$

$$V = 66544 \text{ cuft}$$

$$\text{Capacity} = 66544 * 7.49 = \underline{498,414.56 \text{ US Gallons}}$$

Pond C

$$h = 6' \quad B_1 = 194' \times 73', \quad B_2 = 212' \times 96'$$

$$V = 6(14162 + 20352 + \sqrt{14162 * 20352}) / 3 \quad V = 6(34514 + 16977) / 3$$

$$V = (6 * 51491) / 3 \quad V = 308946 / 3$$

$$V = 102982 \text{ cuft}$$

$$\text{Capacity} = 102982 * 7.49 = \underline{771,335.18 \text{ US Gallons}}$$