OSU SEA GRANT MARINE ADVISORY PROGRAM OREGON STATE UNIVERSITY CORVALLIS, OREGON 97331

MEDS 45
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# MARINE ECONOMICS DATA - 42-FOOT CHESAPEAKE BAY OYSTER AND CRAB VESSEL[a/]

**Description** $20,000 market value, 42 feet by 14 feet, wood hull, 10-ton capacity, 450 cubic inch V8 gasoline engine, C.B. radio, 3 sets of hydraulic double-rigged patent tongs, 250 crab pots, hydraulic pot puller, and 9 HP air-cooled auxiliary engine.

| Fishery | Effort (days) | Price per bu. ($) | Production[b/] Low (bu) | Medium (bu) | High (bu) |
|---|---|---|---|---|---|
| Chesapeake oyster.. | 112 | 3.50 | 5,018 | 7,168 | 9,318 |
| Blue crab..... | 96 | 7.05 | 1,200 | 2,400 | 3,600 |
| (1) Gross returns..... | | | $26,023 | $42,008 | $57,993 |

**Variable costs[c/]**

| | Oyster | Crab | Season total with: Low production | Medium production | High production |
|---|---|---|---|---|---|
| Vessel repairs..... | $ 358 | $ 349 | $ 742 | $ 742 | $ 742 |
| Gear repairs..... | -- | 2,352 | 3,513 | 3,642 | 3,771 |
| Engine repairs..... | 1,433 | 1,248 | 2,681 | 2,681 | 2,681 |
| Fuel..... | 932 | 1,488 | 2,420 | 2,420 | 2,420 |
| Bait..... | 0 | 1,152 | 1,152 | 1,152 | 1,152 |
| Galley..... | 358 | 288 | 646 | 646 | 646 |
| Transportation..... | 1,505 | 1,320 | 2,825 | 2,825 | 2,825 |
| Crewshare..... | -- | 1,440 | 7,713 | 10,400 | 13,088 |
| (2) Total variable costs..... | | | $21,692 | $24,508 | $27,325 |

**Fixed costs[d/]**

| | | | |
|---|---|---|---|
| Depreciation..... | $ 2,400 | $ 2,400 | $ 2,400 |
| Moorage..... | 250 | 250 | 250 |
| Accounting..... | 190 | 190 | 190 |
| Miscellaneous..... | 280 | 280 | 280 |
| (3) Total fixed costs..... | $ 3,120 | $ 3,120 | $ 3,120 |

| Opportunity costs[e] | Low production | Medium production | High production |
|---|---|---|---|
| (4) Operator's labor ($1.25/bu. + $15/day)..... | $7,713 | $10,400 | $13,088 |
| (5) Operator's management (10% of boatshare). | 1,409 | 2,739 | 4,069 |
| (6) Total investment ($20,000 @ 8%)..... | 1,600 | 1,600 | 1,600 |
| **Summary** | | | |
| Return to labor, management, and investment (1 less 2 and 3)..... | $1,211 | $14,380 | $27,548 |
| Return to labor and management (1 less 2, 3, and 6)..... | -389 | 12,780 | 25,948 |
| Return to investment (1 less 2, 3, 4, and 5)..... | -7,911 | 1,241 | 10,391 |

[a] Original data developed by selected Chesapeake Bay watermen, May 1972, in cooperation with the University of Rhode Island and Oregon State University. Costs, landings, and prices have been adjusted to reflect changes since the original data were developed, and is representative of above-average operators for this area.

[b] Low and high are 30% below and above medium for oysters and 50% below and above medium for crab.

[c] Costs that vary with fishing effort. May include unpaid crew, operator, and family labor. Some costs, such as gear repair and crewshare, also vary with production.

[d] Costs that do not vary with fishing effort.

[e] Opportunity cost of labor is the estimated value of this operator's time, or what could have been earned working for someone else. Opportunity cost of management is the estimated value of this operator's management (decision-making and risk), or what could have been earned managing another similar business. Opportunity cost of investment is the estimated fair return to total investment in the business, regardless of the actual amount of debt.