



Highlights of NAHMS Catfish 2003: Part I

The USDA's National Animal Health Monitoring System (NAHMS) conducted its second national study of the catfish industry in cooperation with the National Agricultural Statistics Service (NASS). Data were collected on catfish production practices in four States (Alabama, Arkansas, Louisiana, and Mississippi) as part of the National Animal Health Monitoring System's (NAHMS) Catfish 2003 study. These four States represented the nation's major catfish producing States, accounting for: 73.4 percent of all U.S. catfish operations on January 1, 2003; 95.5 percent of the total national catfish sales in 2002; and 95.5 percent of the water surface acres to be used for catfish production from January 1 through June 30, 2003. There were 739 respondents to the catfish questionnaire in the four participating States (Alabama = 223, Arkansas = 157, Louisiana = 67, Mississippi = 292) with an overall response rate of 79.0 percent.

The following highlights were excerpted from the report released in November 2003: Catfish 2003 Part I: Reference of Fingerling Catfish Health and Production Practices in the United States, 2003.

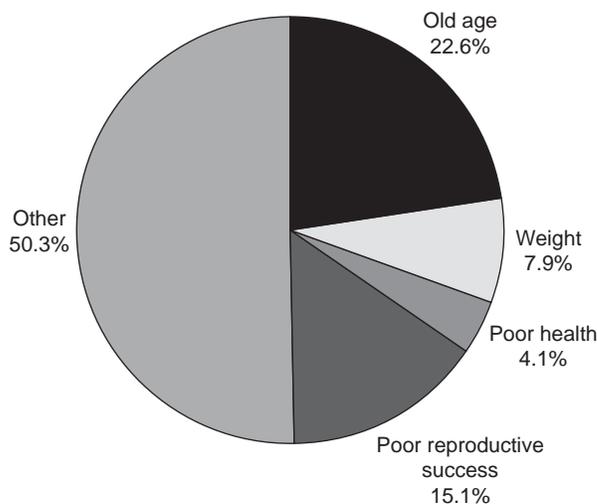
- Most catfish operations (95.0 percent) raised foodsize fish. Smaller percentages bred catfish (14.2 percent), operated a hatchery (12.8 percent), and/or raised fry to fingerlings (29.9 percent).
- Approximately one in six (16.3 percent) catfish broodstock were culled in 2002, relative to the January 1, 2003, inventory. The low percentage of broodstock over 6 years of age present on breeding operations is consistent with this culling rate (Table 1).

Table 1. Percentage of Broodstock by Age:

| Age (Years) | Percent Broodstock |
|-------------|--------------------|
| Less than 3 | 17.8 |
| 3 to 4 | 57.8 |
| 5 to 6 | 21.1 |
| More than 6 | 3.3 |
| Total | 100.0 |

- Over half of catfish breeding operations (54.5 percent) did not cull any broodstock in 2002, while almost a fifth of operations (19.1 percent) culled 21 percent or more of their broodstock in 2002, relative to the January 1, 2003, inventory. Half of all broodstock were culled for "other" reasons, which reflects the downsizing of inventory by some producers (Figure 1).

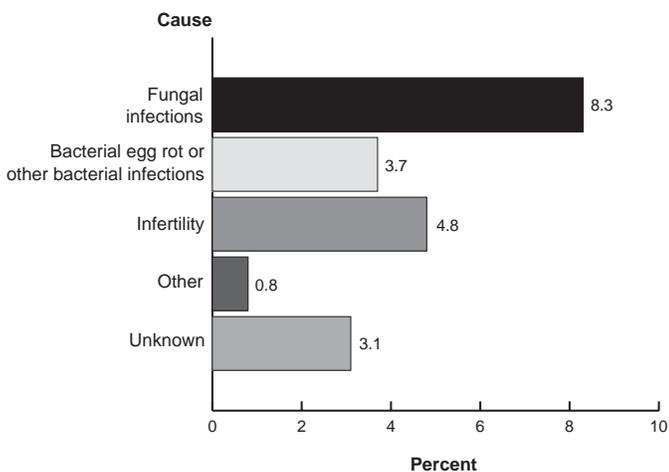
Figure 1. Percentage of Brookstock That Were Culled for the Following Reasons



- Nearly 15 percent of broodstock were lost to disease, predation, or other problems. Broodstock losses were higher in the West region* (17.1 percent) than the East region (4.1 percent).
 - Most catfish breeding operations stocked at least 1,000 pounds of broodstock per acre in spawning ponds (65.8 percent of operations, and 86.0 percent of broodstock). Although a substantial percentage of operations (22.7 percent) stocked less than 800 pounds of broodstock per acre, the percentage of all broodstock stocked at this density was relatively low (7.0 percent).
 - Overall, almost 80 percent of eggs brought into the hatchery survived to hatching. The percentage of all eggs typically surviving to hatching did not differ significantly between small (82.5 percent) and large (78.9 percent) hatcheries.
 - Fungal infections accounted for the loss of 8.3 percent of all eggs brought into the hatchery (Figure 2).
- Overall, 11.4 percent of fingerling operations vaccinated fry against Enteric Septicemia of Catfish (ESC) in the past 2 years. The percentage of operations that vaccinated for ESC was comparable on small (7.5 percent) and large (13.8 percent) operations.
 - The operation average percentage survival of fry from stocking to harvest during the past 2 years was 69.0 percent. The percentage survival of fry weighted by the number of fry stocked in 2001 was similar (66.2 percent) to the operation average percentage survival. Percentage survival was similar between small and large operations.
 - Fry losses were attributed to a number of causes. The highest percentage of operations reported losses due to ESC (52.9 percent), unknown causes (46.2 percent), and columnaris (45.2 percent). Predation losses were reported by 26.2 percent of fingerling operations.

*Regions:
East: Alabama, Eastern Mississippi
West: Arkansas, Louisiana, Western Mississippi

Figure 2. Percent of All Eggs (Weighted by Number of Spawns) That Typically Did Not Hatch, by Cause



- The majority of hatcheries (79.3 percent) used chemicals to prevent fungal or bacterial infections in hatching troughs. A higher percentage of large hatcheries than small hatcheries (96.6 and 67.6 percent, respectively) used at least one chemical to prevent fungal or bacterial infection. Betadine® and copper sulfate were the most commonly used preventive chemicals (43.0 and 42.7 percent, respectively).

For more information, contact:

USDA:APHIS:VS:CEAH
 NRRC Building B, M.S. 2E7
 2150 Centre Avenue
 Fort Collins, CO 80526-8117
 970.494.7000
 E-mail: NAHMSweb@aphis.usda.gov
www.aphis.usda.gov/vs/ceah/cahm

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