

AQUACULTURE PRODUCTION (FISH 5250/6250)
PRODUCTION PAPER
ALL STUDENTS

All students are required to submit a written report on the production of a cultured aquatic animal or plant. For graduate students, this is 20% of your final grade. For undergraduate students, this is 15% of your final grade. In addition to the paper, graduate students are required to give a 15-minute oral presentation on the production paper.

A hard copy (paper copy) of your written report will be turned in to the instructor on **Monday, April 4, 2016 by 4 pm.-No exceptions!** An electronic copy should also be sent to Dr. Daniels at daniewh@auburn.edu. Label your file with your name and species common name (example: Daniels_red drum). I strongly suggest that you keep a second copy of your paper separately so that you have 2 copies in case you or I have problems with or lose the first copy.

The written report will be graded on content of information and writing style which includes misspelled words and poor grammar. If you have questions or need help with finding information, feel free to stop by my office. **Don't leave this assignment to the last minute.**

Your written report will contain the following information:

1. **My Species:** This is an introduction to the life history of your organism as it relates to its culture. Stick to information concerning life history and aquaculture. This section should be no more than one page. You should also include a brief statement on why you chose this particular species to culture (market, looks, etc.).
2. **My Farm:** This section will describe in adequate detail your farm, including type of production facilities (e.g., ponds, tanks, recirculating systems, etc.) and location. You should describe the number and sizes of growing units and total farm size. Providing a schematic of your farm would be helpful. You should provide information on the source of your water, its water quality profile, and the quantity of water available throughout the year (i.e., water budget; note any time of the year when water quantity is limiting and how you will handle that). Provide adequate information on how your culture units are filled from this water source. Include any information on special equipment needed for your farm including aeration equipment. You should also include any information on special permits or regulations needed for growing your particular species at your particular site.
3. **My Farm Management Practices:** This section will include information on site preparation, stocking rates and timing, feeding practices (types of feeds, sizes, rates, etc.), water quality and effluent management, disease and predator prevention and management, transportation practices for incoming and outgoing fish, breeding (if you are doing this or information on sourcing your fish), and finally a harvesting and marketing program. From this information you will generate an enterprise budget. So, for each of these, you will need to be able to calculate the amount of chemicals, feeds, fish, etc. needed for each culture unit as well as total farm requirements and costs for these. **All of your farm management practices should be based (and cited) upon known or proven management practices for this species.**

For feeding, you will need to list all the types of feeds you will use during a production run and an estimated quantity for each feed used.

For water quality management, you will need to list which parameters you will test, how you'll test them and how often. You must also list one water quality parameter that may be a potential problem and how you will correct it if it occurs. You must provide enough detail based upon one of your culture units. For example, you have one 5-acre pond of catfish (food size) that is experiencing high nitrite. How do you treat this including quantities of added chemicals, etc.

For diseases (including parasites, etc.), you must provide an action plan in the event that a particular disease outbreak occurs. How do you recognize the problem, diagnostics and treatment? Include dosage rates, etc. Include in your plan how you will prevent its introduction or outbreak. Be sure to use FDA approved or low priority chemicals and drugs and list withdrawal period required before fish can be sold.

For harvesting and marketing, provide adequate information on when you will harvest, the type of product and market, and selling prices (your receiving price, not the final market price). Describe any particular issues related to your market.

4. **Enterprise Budget:** From the previous information and using enterprise budget information from the literature or costs based on local conditions, you will generate an enterprise budget to determine the potential profitability of your operation. See attached example ("Aquaculture Enterprise" by Kays and Drohan) for information you'll need to include.

Additional information on paper preparation:

- There is no minimum length to your report. This is a quality, not quantity issue. Your report needs to have all pertinent information and be complete.
- You will use single spaced, 12-point text using MS WORD.
- Margins are 1" on top, bottom, and sides.
- Each page is numbered starting with your first page.
- The title of your report with your name should be located at the top of the first page.
- Small pictures (not to exceed 3" x 3" each) may be added to enhance your report, but are not meant to be fillers. When you use pictures, wrap text around it so that you do not have empty spaces in your paper.
- At the end of the paper, a "References" section should list the full internet and publication citations. Internet citations should follow the format below or as close as possible. Often, all the information provided in the internet citation below will not be available. All publication citations shall follow the Journal of World Aquaculture format. List citations alphabetically.

Masser, M.P. and Jensen, J.W. 1991. Calculating Treatment for Ponds and Tanks.
Southern Regional Aquaculture Center 410. On-line:

<http://www.msstate.edu/dept/srac/fslist.htm#SRAC%20410-419%20--%20TREATMENTS> Accessed 2/11/1999.