Module V
Planning and Managing an Aquabusiness

To the Teacher—Module V is intended to develop students' fundamental competencies in planning and managing an aquabusiness. This includes the functions of management, needed skills, record keeping, human relations and marketing, including markets for aquacrops and promotion. The level of instruction is introductory. Detailed instruction of aquabusiness management is presented in Module VI — Understanding the Business of Aquaculture. This module is comprised of two problem areas:

V-A Managing the AquaFarm
V-B Marketing the Product

Each problem area can be used independently and sequenced in the teaching calendar as best fits the local instructional program. The suggested sequence is to teach problem area V-A — Managing the AquaFarm, first and problem area V-B — Marketing the Product, afterward. Of course, most instructional programs will teach both of the problem areas.

The format of each problem area provides a suggested systematic instructional strategy with emphasis on student activity. The content and techniques focus on achieving the problem area objectives. Traditional lecture-presentation and discussion teaching strategies can be enriched with the review and application activities. Application is essential if students are to become proficient in planning and managing an aquabusiness.
Module V — Sources of Reference Materials

The reference materials cited in the problem areas are as follows: (Note: Materials are listed in alphabetical order by the last name of the senior author.)


Small-Scale Marketing of Aquaculture Products by Ronnie J. Gilbert (1990) is available from: Agricultural Experiment Station, University of Georgia, Athens, GA 30602.


Transportation of Warmwater Fish: Equipment and Guidelines; Sorting and Grading Warmwater Fish; and Transportation of Warmwater Fish; Loading Rates and Tips by Species by Gary L. Jensen (1990) are available from: Louisiana Cooperative Extension Service, Louisiana State University, Baton Rouge, LA 70803.

Introduction to Aquaculture by Matthew Landau (1992) is available from: John Wiley and Sons, Inc., 605 Third Avenue, New York, NY 10158.


Instructional Packet: Marketing Plan Project by Jasper S. Lee (1990) is available from: The National FFA Organization, P.O. Box 15160, Alexandria, VA 22309-0160.

The following periodical produced by the United States Department of Agriculture:

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Handouts

H V-A-1 Hypothetical Situation: What is your Decision?

Transparency Masters

T V-A-1 Planning and Managing an Aquabusiness: Managing the Aquafarm
T V-A-2 Management
T V-A-3 Important Areas in Management
T V-A-4 Supervision
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Module V-A — Planning and Managing an Aquabusiness

Problem Area: Managing the Aquafarm

Estimated Time: 3-6 hours

Purpose/Goal: This problem area helps students develop competencies in the management processes that are important for aquafarms. Fundamentals of management are presented. The importance of management is stressed.

Learning Objectives: Upon completing this problem area, students will be able to:

• define related management terms;
• describe functions in the management process;
• identify management considerations in planning an aquabusiness;
• explain important skills of managers;
• describe the importance of records and reports;
• explain important human relations skills.

Instructional Resources:

The following instructional resources are recommended for use in teaching this problem area:

Essential:

• Transparencies made from the masters attached to this teaching plan.

Additional: Any general references on business or farm management and aquaculture. Several examples are:

Agribusiness: An Entrepreneurial Approach, by Hamilton, Connelly and Doster.

Introduction to Aquaculture, by Landau.

CONTENT AND PROCEDURES

Preparation
(Interest Approach):

The interest approach prepares students for studying of important considerations in aquafarm management. This will be achieved by contrasting operating an automobile with managing the aquafarm.

The procedure follows:

1. Ask how many students drive an automobile. Have them describe the different tasks involved and list them on the chalkboard. Examples of tasks include: insert key into ignition, fasten seat belt, start engine, shift into gear, push on the accelerator, turn the steering wheel, and push the brake pedal.

2. Ask who determines how fast and in what direction an automobile travels? The response will be the operator (driver).

3. Indicate that there is a parallel between operating an automobile and managing an aquafarm. Ask students to offer their suggestions.

4. The aquafarm manager is to the farm as the driver is to the automobile. The manager makes decisions about direction of the farm such as hiring people, designing facilities, buying feed, selecting the species to be grown, and deciding when to harvest.

5. Explain that just as an automobile responds to the driver’s commands, an aquafarm moves ahead according to the plans put into action by the manager.

6. Lead from the interest approach into the listing of the objectives for the problem area.
Presentation

**Key Questions/Summary of Content**

This teaching plan helps students develop basic skills in aquafarm management.

**Teaching Techniques**

Present the objectives by using T V-A-1 or by writing on the chalkboard.

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### I. What is management?

A. Management may be defined in different ways.
   1. The process of getting things done through people.
   2. Using resources to achieve goals.
   3. The integration and coordination of resources to move effectively toward desired objectives.

B. Two important areas of management are involved with an aquafarm.
   1. Effectiveness — how well an aquafarm reaches its objectives over a period of time.
      - In aquafarming, this refers to the quality of the fish produced, the length of time required to produce the crop, and marketing at the optimum size.
      - An aquafarm can be effective in producing a high quality crop but not make a profit.
   2. Efficiency — how well an aquafarm uses its resources.
      - In aquafarming, this refers to whether or not the farm makes a profit.

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A. Use T V-A-2 or the chalkboard to present the three definitions of management. Review each and ask students to select the one they like best and explain why.

B. Use T V-A-3 or the chalkboard to present effectiveness and efficiency. Have students discuss how these two concepts relate to areas of their lives and to other farming and business activities. (One example the teacher might use is school classes usually have a number of students. Explain that a teacher could probably help students learn more (be more effective) with only two or three in a class but this would be inefficient from a taxpayer's perspective.)
• Some efficiency considerations are:
  Are the employees on-task with their work?
  Is feed used without waste?
  Is the water managed to prevent loss of crop?
  Are the growing facilities stocked at the proper level?
  Are careful records kept and analyzed?
• An aquafarm must make a profit for the owners if it is to stay in long-term operation.
• Sometimes a farm might produce a top quality product but the cost of producing it is too high for a profit.

C. Managers must function as supervisors and leaders.
1. Supervision is overseeing and directing the work of others.
• Managers must be present in order to supervise or they must delegate the responsibility to a mid-level manager.
• Managers need to understand the work so they can provide needed reinforcement and direction to the employees.
2. Leadership involves influencing the behavior of people toward objectives.
• Leaders must have followers.
• Managers must have leadership skills if they are to be successful.

D. Organizational behavior is used to describe human behavior in an organizational environment.
1. An aquafarm that employs more than one worker will need to provide an environment where the workers can effectively relate to each other.
2. Problems often arise due to a lack of communication.
3. Individuals gain more satisfaction from their work if they are able to feel their ideas can make a difference.

• Ask students to explain the meaning of on-task behavior. (A common meaning is workers are exerting effort to perform what they are expected to do; they are not loafing.)

• Ask a student to explain the meaning of net profit. (A common definition is the money that goes to the owner after all expenses are paid.)

C. Use TV-A-4 or the chalkboard to present definitions of supervision and leadership.

D. Use TV-A-5 or the chalkboard to explain the concept of organizational behavior. Ask students how an athletic team must respond from an organizational point of view.
E. Three levels of management are often found with large aquafarms.

1. Top — includes the chief officers/owners of an aquafarm, generally the president or general manager.
2. Middle — between top and operating management; in large businesses this level includes positions such as controller, marketing manager, sales manager, plant manager and new product manager.
3. Operating — involves direct contact with the employees who perform the work; may also be known as first-line supervision; examples are business accounting supervisor, production supervisor, quality control supervisor, maintenance supervisor and traffic manager.
   • Even on small farms, the duties typically ascribed to the levels must be performed.

II. What are the important functions in management?

A. Management involves five functions.
   1. Planning — selecting alternate courses of action; setting objectives; determining how to achieve objectives; communicating with others on how to achieve the objectives; and evaluating how well the objectives were achieved.
   2. Organizing — delineating and grouping activities to achieve objectives; dividing the work; and establishing managerial authority.
   • Reporting relationships must be established so that employees know to whom they report.
   • Span of control refers to the maximum number of individuals a person may supervise; usually 4 or 5 persons at the highest level of management and 6 to 10 at the level of operating or first-line management.

A. Use TV-A-7 or the chalkboard to present a summary of the five management functions. Ask students to provide examples of each as related to managing aquafarms.

2. Explain that without being organized, an aquafarm is like a group of people trying to play ball without being organized. Communication is a failure. People don’t know their responsibilities. They don’t play nearly as well as they should.
3. Staffing and human resource management — determining the personnel needed, hiring, training, appraising performance and compensating.

4. Leading and influencing — involves putting into action, providing direction to employees, actuating employee behavior.

5. Controlling — focuses on the efficient accomplishment of objectives; standards are set and the performance of workers is measured against these standards. Remediation or reinforcement is provided; makes sure what is done is what was intended to be done.

B. Management functions apply on an aquafarm.
   1. The functions are used on small and large aquafarms.
      • Small farms use less sophisticated approaches to management; the manager may also be the major source of labor.
      • Larger farms use more sophisticated approaches. Communication becomes more important. Opportunities for inefficiencies to arise are greater.
   2. Failure of managers to perform the functions can result in the failure of an aquafarm.
      • Failure can appear immediately such as when water isn’t properly managed.
      • Failure can occur over a long period of time due to lack of efficiency.

III. What must managers consider in planning an aquafarm?
   A. Managers are responsible for a wide range of considerations in planning an aquafarm.
      1. Good information is needed in order to make the best plans.

3. Reinforce with students the importance of having good employees and encouraging them to be productive. Explain that it is fairly easy to employ an individual but difficult to terminate.

4. In some references, leading is referred to as “directing” or “actuating.” Explain how the role of managers is changing from directing to leading.

5. Be sure students grasp the concept of controlling. It focuses on evaluation and records analysis and not on autocratic control over the employees.
   • Set up a 15-20 minute time during class and assign students to role play 1-5. Review the steps at the end of the role play.

B. Take a field trip to a farm to observe how the management functions are used. Interview the manager for more detail on how the functions apply on the farm.

2. Ask students to offer examples of how the failure of a manager can result in the failure of an aquafarm.
2. Information is obtained by visiting other farms, attending field days, attending aquaculture seminars, reading journals, and seeking the assistance of aquaculture consultants.

B. Several major items must be considered in planning an aquafarm.
1. The type of aquafarm to establish requires considerable effort in planning.
   • Examples include:
     food fish production,
     hatchery and seed stock production,
     broodfish production,
     recreational fee lake.
2. The species to be grown must be studied.
   • Consider the available water and the species requirements.
   • Determine if there is a market for the product.
   • Determine if an infrastructure exists (base of suppliers of equipment, feed and seed stock; availability of processors or other market outlets).
3. The risks involved must be identified. Risks may include:
   • availability of dependable supply of quality water;
   • market and price stability;
   • possible losses of crop through diseases, water problems and predators.
4. Compliance with legal regulations requires determining what regulations apply. Regulations may cover:
   • obtaining and disposing of water;
   • species that are legal to produce;
   • health and safety regulations for employees.
5. Selecting a site for the aquafarm involves many factors including:
   • appropriate water must be available;

B. Use T V-A-8 or the chalkboard to summarize the items to consider in planning an aquafarm.

2. Ask students to name species that might be appropriate in their home community. Have them explain why they named a particular species.

3. Explain a risk is the potential for a loss. Owners can lose all that they have invested in an aquafarm.
   • Ask students to explain the difference between "unknowns" and "uncertainties."
   • Explain how a good manager can reduce risks.
4. Cite any local examples of problems individuals have experienced with legal regulations.

5. Ask students to name a few locations in their community that might be good for an aquafarm.
• located near market outlets and suppliers of feed and other inputs;
• topography of the land is appropriate for converting to aquaculture;
• electrical power is economical and available.

6. Determining the facilities and equipment needed is a major area for planning.
• Plans are based on the type of aquafarm to be established.
• A written facility plan, including specifications, should be developed.

7. Determining sources of financing may require careful study.
• Financing is needed for initial costs such as buying land, constructing facilities and obtaining equipment.
• Financing is needed for annual or operating costs such as seed stock, feed, labor and power.

8. Determining possible returns from the aquafarm is a must.
• Budgets can be obtained from various agencies such as the Cooperative Extension Service.
• Aquafarm managers can (and should) prepare a budget for the proposed aquafarm.

IV. What are the important skills of managers?

A. Four important skills of managers are included here:
1. Decision making — choosing one course of action from among several possible courses of action.
• Decisions should be made through unemotional reasoning and logic rather than emotional or haphazard thinking.
• Rational decision making involves seven steps:

6. Using a species adapted in the local community, have students name facilities and equipment that might be needed.

7. Ask students to name local financing sources for aquafarming.

8. Explain that a budget is a projection of expenditures and income for the aquafarm. Ask students to explain why a budget is needed.

A. Use T V-A-9 or the chalkboard to help describe four important skills of aquafarm managers.
(1) Become aware of problem,
(2) Identify (define) problem,
(3) Determine alternative solutions,
(4) Evaluate alternatives,
(5) Choose best alternative,
(6) Implement and follow up decision,
(7) If the decision doesn’t work, repeat the process.

2. Delegating — sharing or shifting authority to others.
   • Managers usually can’t do all of the work on an aquafarm; they must allow others to perform duties assigned to them.
   • Work is divided among employees with each having particular responsibilities.
   • Delegation requires knowing the demands of the job as well as capabilities of the workers.
   • Good communication is essential.
   • Follow up must be used to assess how well the delegated activities are being performed.

3. Handling details — all activities associated with successful aquafarm operation must be covered, including supervising employees, keeping records, filling out reports, making prompt payments for labor or supplies, testing water, selecting fingerlings and harvesting.
   • Details must be handled promptly and accurately. Poor records and reports can result in legal problems.
   • Relating to other people requires attention to detail. Employees need to know the manager cares. Individuals who buy from the farm must be treated properly.

4. Leading the employees — getting workers to perform the jobs that need to be done requires leadership.
   • Successful leaders get input from followers in making decisions and establishing a direction.
   • Use TV-A-10 or the chalkboard to present the steps in rational decision making. Be sure students understand that unemotional reasoning and logic must prevail. Ask them to name a problem and work through the process in step-by-step procedures. Analyze each as the group proceeds.

2. Ask students to name a responsibility that has been delegated to someone where they did a good job with it, another example where a poor job was done.

3. Explain the importance of properly handling details. Records must be precise, every task performed as it should be, and all supplies in place. If not, the farm will be inefficient.

4. Ask students to describe what happens on an aquafarm when the manager fails to have these qualities. Example: not well organized, inefficient, and resources are wasted.
• Successful leaders recognize the importance of employee contributions.

V. What records and reports are needed?

A. Records are important in leading and controlling an aquafarm.
   1. Good records provide information for making good decisions.
   2. Good records are needed to provide reports to various agencies.
   3. Good records are a part of evaluating the efficiency and effectiveness of an aquafarm.

B. Aquafarms usually keep records and prepare reports on three time intervals:
   1. Daily — these are the records that are kept each day; in some cases these records are kept on an hourly basis, such as the monitoring of fish in tanks or ponds where written notations are made at each observation.
   2. Quarterly — these records and reports are prepared every three months and most often are for payment of estimated taxes, benefits for employees, and other compliance regulations.
   3. Annual or seasonal — these records are prepared on a periodic basis, often as a part of preparing reports and tax forms.
• Forms are often prepared that prescribe the exact kind of information to be kept, such as the amount of feed put into a pond or the number of dead fish in a tank.
• All employees should be conscientious in keeping records on a daily basis. Recording information should not be postponed until another day.

B. Use T V-A-11 or the chalkboard to summarize the kinds of records and reports that must be kept.

• Have students develop and use forms for the school aquaculture lab to keep records on various production practices.

2. Ask students to name the four quarters of the year: January-March, April-June, July-September, and October-December.
C. Aqua farms need two kinds of records and reports:
   1. Input records (expenses) are records of the costs or investments that have gone into an aquafarm or enterprise on the farm. Inputs may be fixed or variable.
      - Fixed inputs are those that do not change with the level of farming; includes expenditures for land rent, tax, loan interest, insurance premiums, depreciation, and salaries of aquafarm managers.
      - Variable inputs are those that vary with the level of production including seed stock, feed, labor and energy.
   2. Output records — records of the products produced and marketed.
      - Includes date of harvesting, species harvested, disposition of product, gross revenue from the sales, and quantities consumed on the farm or given away.
      - Includes an inventory of stock at beginning and ending of year.

D. Most aquafarms use off-farm assistance to help with records and reports.
   1. Accountants and accounting services may be used.
   2. Aquaculture consultants may be helpful in establishing recording and reporting systems.

E. Many aquafarmers are using computers to help manage records and reporting.

VI. What human relation skills are important in managing an aquafarm?

A. All contact with humans involves some type of relationship.
   1. Good relations create a favorable environment where people can be productive.
      - The manager has a large role in shaping relationships among people.

C. Use T V-A-12 or the chalkboard to outline the kinds of records that are kept.

1. Ask students to identify local accountants. By calling the accountants, determine those involved in aquaculture accounting.

A. Use T V-A-13 or the chalkboard to summarize human relations.
   1. Ask students to name examples of situations where poor human relations has created problems. Have them tell what was done to improve the situation.
• Managers are often called on to solve human differences and prevent friction among employees. This involves resolving conflicts among employees when they arise.

2. Human relationships must recognize differences in people.
• The manager must understand herself/himself.
• Differences among people are to be expected and used as an opportunity to gain increased productivity.

B. Four practices can be followed by the manager to enhance human relations and motivate others.
1. Recognize the accomplishments of people.
• Regularly commend people on their work.
• Provide private feedback on work that is below standard.

2. Obtain opinions of others.
• Use information from workers in making decisions.
• Provide regular opportunities to obtain input.
• Let people know their opinions are important.
• Good managers are good listeners.

3. Be polite to other people.
• Cordial relationships develop when other individuals are shown respect.
• Use communications that help promote goodwill.
• Be willing to do a little extra to make things work out.

4. Express appreciation to people.
• Managers should regularly let employees know they appreciate their work.
• Develop the ability to say “thank you” and do so often.

B. Use T V-A-14 or the chalkboard to outline four practices managers can follow to enhance human relations.

2. Have students describe why it is important to get the opinions of others.
Examples: gather information you didn’t have, make the other person feel important, and establish the manager as a caring person.

3. Ask students to name ways of being polite around the school, in their supervised experience program, and in their homes.
C. Good human relations motivates people.
   1. Motivation results in people being more productive.
   2. An aquafarm with motivated people is more likely to be efficient in producing a quality product.
      • Efficiency leads to profit and long-term success of the aquafarm.
      • Good will is established with others in the aquaculture industry.

C. Ask students to explain why good human relations motivates people.
Review

Review by having students demonstrate their understanding of the objectives. This can be done by using T V-A-1 to present the objectives and calling on students to explain the content that goes with each. Oral questioning can also be used. Another method of review is to have a local aquafarm manager serve as a resource person and describe the role of a manager to the class, including the planning, organizing, staffing, leading and controlling that are a part of being a manager.

Application

Application can involve several approaches as follows:

- Complete the group activity explained in H V-A-1, “What is Your Decision?” Form the students into groups of three to five individuals. Have them select a chairperson for their group. The assignment is to review the situation statement, develop a list of alternatives, and select the best alternative for the situation. After allowing 10 minutes for group work, ask each group chairperson to report on what their group developed. Involve the class in summarizing the suggestions from all the small groups. (Note: During this activity, the teacher may wish to project on the screen T V-A-10 so that students can see the steps in rational decision making.)

- Have students develop a profile description of aquafarm manager duties in the local community. This will involve the student interviewing the farm manager to gather information. (Note: The teacher will want to use some class time to prepare students in terms of how to conduct the interview and what to ask.) All students can give oral reports on their findings to the class.

- Students can apply good management in their supervised experience programs.

- Students can use the information on management as they approach the more advanced study of management and the production of specific aquaculture species.

- Students can be assigned specific management responsibilities in the school laboratory or in a hypothetical aquafarming situation.

Evaluation

Evaluation should focus on the achievement of the objectives specified for this teaching plan. It might involve one or more of the following:

- Observe how students respond to the problem area review, as described above in the section on review and application.

- Observe how students approach management situations in their supervised experience programs.

- Give a written test. (See attached example.)
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Problem Area: Managing the Aquafarm

Instructions: Answer the following questions.

Name______________________________

1. Define the following terms as they relate to an aquafarm:
   a. management ____________________________
   b. effectiveness ___________________________
   c. efficiency ______________________________
   d. supervision _____________________________
   e. organizational behavior __________________

2. Management involves five functions. List and briefly explain each.
   
<table>
<thead>
<tr>
<th>Function</th>
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<tbody>
<tr>
<td>a.</td>
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<td>d.</td>
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</tbody>
</table>

3. Planning the aquafarm is an important function of managers. List six areas where planning is important in establishing an aquafarm.
   a. ____________________________
   b. ____________________________
   c. ____________________________
   d. ____________________________
   e. ____________________________
   f. ____________________________
4. Decision making is an important responsibility of managers. Rank the following steps in the rational decision-making process by placing a 1 by the first step, 2 by the second, etc.

   ______ choose best alternative
   ______ identify (define) problem
   ______ become aware of problem
   ______ implement and follow up on decision
   ______ determine alternative solutions
   ______ if decision doesn’t work, repeat the process
   ______ evaluate alternatives

5. What types of time interval records are kept by aquafarms?
   a. 
   b. 
   c. 

6. Define input and output records.

7. What is human relations? List four suggestions to develop good human relations.
   Definition

   Suggestions
   a. 
   b. 
   c. 
   d. 
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1. a. Getting things done through people while using resources to achieve goals; and the integration and coordination of resources.

   b. How well an aquafarm reaches its objectives over a period of time; the quality of fish produced, length of production time and marketing.

   c. How well an aquafarm uses its resources; whether or not the farm makes a profit; top-quality product versus production cost.

   d. Overseeing and directing the work of others while understanding the work so as to provide reinforcement and direction to the employees.

   e. Used to describe human behavior in an organizational environment; an environment where workers can relate should be provided.

2. a. Planning — Selecting alternate courses of action, setting objectives, determining/communicating how to achieve.

   b. Organizing — Delineating/grouping activities to achieve objectives, dividing work, establish managerial authority.

   c. Staffing — Determining the personnel needed, hiring, training, appraising performance and compensating.

   d. Leading & influencing — Putting into action, providing direction to and actuating behavior of employees.

   e. Controlling — The efficient accomplishment of objectives, measuring set standards against workers performance.

3. a. The type of aquafarm to establish

   b. Compliance with legal regulations

   c. The species to be grown

   d. Selecting a site for the aquafarm

   e. The risks that are involved

   f. Facilities and equipment needed
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4.  5 — choose best alternative
    2 — identify (define) problem
    1 — become aware of problem
    6 — implement and follow up on decision
    3 — determine alternative solutions
    7 — if decision doesn’t work, repeat the process
    4 — evaluate alternatives

5.  a. daily
    b. quarterly
    c. annual or seasonal

6.  Input records — costs or investments that have gone into an aquafarm. Output records — records of the disposal of products produced.

7.  Definition — Having contact with humans while recognizing everyone is different.

   Suggestions:
   a. Recognize the accomplishments of people.
   b. Gather the opinions of others.
   c. Be polite to other people.
   d. Express appreciation to people.
Hypothetical Situation: What is Your Decision?

This activity uses the rational decision-making steps presented in Module V-A. Read the situation, develop possible alternatives and select the best alternative. Be prepared to defend your selection.

**Situation** — You are the manager of an aquafarm with six employees. One of the employees is responsible for regularly checking the oxygen levels in your ponds every hour through the night. On a Saturday morning, you make your rounds to observe the ponds for any problems. In one pond, the fish are gasping at the surface for air. In another, there are several hundred dead fish floating on the surface. No aerators are operating in either pond.

**Other Information** — On previous Saturday mornings you have had indications that the employee did not follow through on the water monitoring duties. This is the first time fish have been lost. The employee had a history of not reporting to work on the weekends in previous jobs, but you thought the individual had been dependable in the job on your farm. The employee is a relative of the manager of the processing plant that buys your aquacrop.

**Make a Decision!** — Be sure to use the steps in the rational decision-making process. Answering the following questions might be helpful.

What is the problem?

What alternatives are available?

What are the pros and cons of each alternative?

What is the best alternative? (This is your decision!)

How will the decision be implemented and followed up?
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Managing the Aquafarm

OBJECTIVES
• Define management terms
• Describe management functions
• Identify management considerations in planning
• Explain important skills of managers
• Describe records and reports
• Explain important human relations skills
Management

DEFINITIONS:
- The process of getting things done through people
- Using resources to achieve goals
- The integration and coordination of resources to move effectively toward desired objectives
Important Areas in Management

- Effectiveness — how well an aquafarm reaches its objectives
- Efficiency — how well an aquafarm uses its resources
Supervision

- Overseeing and directing the work of others

Leadership

- Influencing the behavior of people toward objectives
Organizational Behavior

- Describes human behavior in an organizational environment
- Aquafarms and aquabusinesses are organizations
Levels of Management

- Top — chief officers or owners; decision makers
- Middle — between top and operating
- Operating — direct contact with employees performing work (also known as first line supervision)
Management Functions

- Planning — selecting courses of action
- Organizing — grouping activities and relationships
- Staffing and human resource management — involves all aspects of employees
- Leading and influencing — getting action
- Controlling — efficiency of aquafarm; comparison to standards
Considerations in Planning an Aquafarm

- Type of farm to establish
- Species to be grown
- Risks involved
- Legal regulations
- Site selection
- Facility and equipment needs
- Financing
- Possible returns — budgeting
Four Important Skills of Managers

- Decision making
- Delegation
- Handling detail
- Leadership
Procedure in Rational Decision Making

1. Become aware of problem
2. Identify (define) problem
3. Determine alternative solutions
4. Evaluate alternatives
5. Choose best alternative
6. Implement and follow up
7. If this doesn't work, repeat process
Time Intervals of Records and Reports

- Daily
- Quarterly
- Seasonal or annual
Kinds of Reports and Records

- Input — records of costs or investments
  - Fixed inputs
  - Variable inputs
- Output — records of products produced and marketed or given away
Human Relations in Aquafarm Management

- All contact with humans creates some type of relationship
- Management has a big role in human relations
- Must recognize differences in people
Four Practices to Enhance Human Relations

- Recognize the accomplishments of people (employees)
- Get the opinions of others
- Be polite
- Express appreciation