

HORT 421/521
Fruit Crops Management

Spring 2008
Tuesday & Thursday
8:10 - 10:25 a.m.

AGENDA

Jan. 8

- **Welcome and introductions**
- **Syllabus, assignments, schedule**
- **Academic integrity**
- **Introduction to management principles and changes in the fruit crops industry**

INSTRUCTORS

- **Dr. Preston Andrews**

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- **Dr. Don Elfving**

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- **Dr. Matt Whiting**

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COURSE GOAL

Examine physiological concepts and management strategies for optimizing productivity, quality, profitability, and resource utilization efficiency of fruit crops grown in the Pacific Northwest

PREREQUISITES

- **Plant or crop physiology course (familiar with plant structures, growth & development)**
- **Course in fruit crop production (Pomology, Small Fruits, Viticulture) or professional experience**

TEACHING APPROACH

- **Lectures from instructors & invited experts from research, extension & industry**
- **Collaborative learning experience**
- **Questions & discussion are expected**
- **No textbooks or exams**
- **Extensive writing assignments (“M” writing-in-the-major course)**

INTERNET SITE

<http://hort.tfrec.wsu.edu/hort421-521>

ASSIGNMENTS

- **Written lecture summaries - 40%**
 - **Short (800-1000 words) paper summarizing key concepts & implications of one lecture topic from each week's lectures (8 of the 9 weeks)**
 - **Literature references are expected & must be cited**
 - **Due by Friday of the following week**
 - **Submit electronically to responsible instructor**

- **Term paper - 40%**
 - **An instructor-approved topic related to the fruit industry**
 - **Due dates:**
 - Topic by Jan. 17 for approval**
 - Detailed outline/annotated bibliography by Feb. 14**
 - Complete draft by March 27**
 - Final version of paper by April 28**
 - **Submit electronically to all instructors**

- **Oral presentation - 20%**
 - 10-12 minutes on topic of term paper
 - Visual aids required
 - PowerPoint preferred
- **Research proposal (Hort 521) - 25%**
 - Assess research needs & priorities within a general topic area of a fruit crop of your choice
 - Complete draft by March 27 & final version by April 28

GRADING CRITERIA

- **Accuracy, use of information, completeness & use of references - 25%**
- **Analysis of the subject - 25%**
- **Organization & clarity of presentation - 25%**
- **Persuasiveness & validity of conclusions - 15%**
- **Spelling, grammar, sentence structure, punctuation, neatness, literature citation style, etc. - 10%**

LATE ASSIGNMENTS

Writing assignments received after the due date will lose 15 points for each day late & will not be accepted for credit if received 7 or more days after the due date

WRITING GUIDELINES

- “Brainstorm” topic ideas
- Conduct preliminary research [WSU Libraries](#)
- Formulate a tentative research question
- Develop an annotated bibliography & detailed outline
- Write first draft
 - Introduction, body & conclusion
- Proofread & revise, . . .
- Ask someone else to review it
- Edit & revise

ACADEMIC HONESTY

- **Part of your contract as a WSU student**
- **Articulated in *WSU Standards of Conduct for Students***
- **Avoid cheating, falsification, fabrication, multiple submissions, plagiarism, abuse of academic materials, complicity in academic dishonesty & misconduct in research**

PLAGIARISM

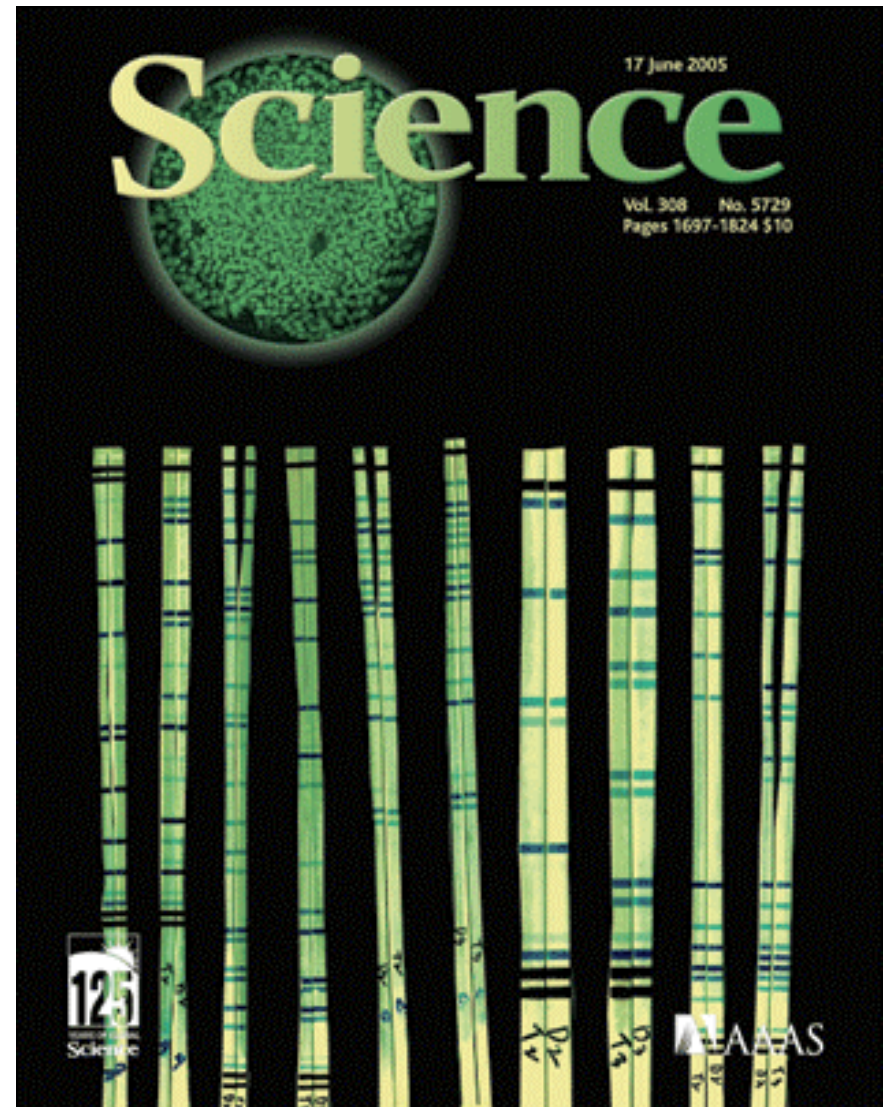
- **Knowingly representing the work of another as your own, without proper acknowledgment of the source**
- **Only exception is “common knowledge”**
- **[WSU Plagiarism Information Site](#)**
- ***Academic Integrity Agreement Form***

ACADEMIC DISHONESTY

Fabrication of data

“Human embryonic stem cells derived by nuclear transfer ... match the donor cells genetically and immunologically ..., regardless of the age, sex, or disease status of the donor of the nucleus. The[se] patient-specific cell lines ... may aid in the discovery of complex disease mechanisms and human developmental processes.” (p. 1777)

Dr. Woo Suk Hwang, S. Korea



AGRICULTURAL MANAGEMENT

“Agricultural sciences are applied disciplines, dealing not only with the natural system, but also with people and people’s interaction with the natural system. Therefore, socioeconomic issues are common, and processes of decision-making and management are fundamental.”

N.D. Stone. 1992. A Case for a Management Science Curriculum in Agriculture and Natural Resources. AI Applications 6: 1-3

MANAGEMENT

- **The act (art & science) of managing, or handling, controlling, directing, guiding, administering, etc.**
- **Bringing together people (labor), money (capital), and materials (fruit crops), in a framework of time, for economic and sociological purposes**

FRUIT CROPS

- **Intensively managed, perennial plants with permanent, or semi-permanent, vegetative frameworks**
 - **Tree fruits: apple, cherries, pears**
 - **Shrubs: raspberries, blueberries**
 - **Vines: grapes, kiwifruit**

MANAGEMENT OF AGRICULTURAL SYSTEMS

- **Interface between the economic, social & biological**
- **Biological and socioeconomic systems are poorly understood**
- **Understanding the process of decision-making**
- **Decisions in the face of uncertainty & risk**

MANAGEMENT SKILLS

- **Crop production (orchard, vineyard)**
- **Nursery**
- **Sorting, packing & storage**
- **Chemical (pesticides, fertilizers)**
- **Extension, research, education**
- **Consultants**
- **Marketing**
- **Financial**

MANAGER'S RESPONSIBILITIES

- **Determining goals**
- **Planning**
- **Organizing and staffing**
- **Directing, controlling & coordinating**
- **Motivating**
- **Evaluating and rewarding**

DETERMINING GOALS

- **What products or services are needed?**
- **Who needs these products or services?**
- **At what price and quantity are they needed?**
- **Does this organization have the interest and ability to provide these products or services?**

PLANNING

- **Planning is for the future, but based on past history**
- **To accomplish an objective, with the most efficient expenditure of resources (labor, capital, materials) in the time period required**

PLANNING PROCESS

- 1. Define the problem to be solved**
- 2. Consult with advisors**
- 3. Gather and evaluate information**
- 4. Encourage input from staff**
- 5. Develop several alternatives**
- 6. Analyze alternatives**
- 7. Make a decision**
- 8. Communicate and implement the plan**
- 9. Evaluate success of plan**

ORGANIZATION

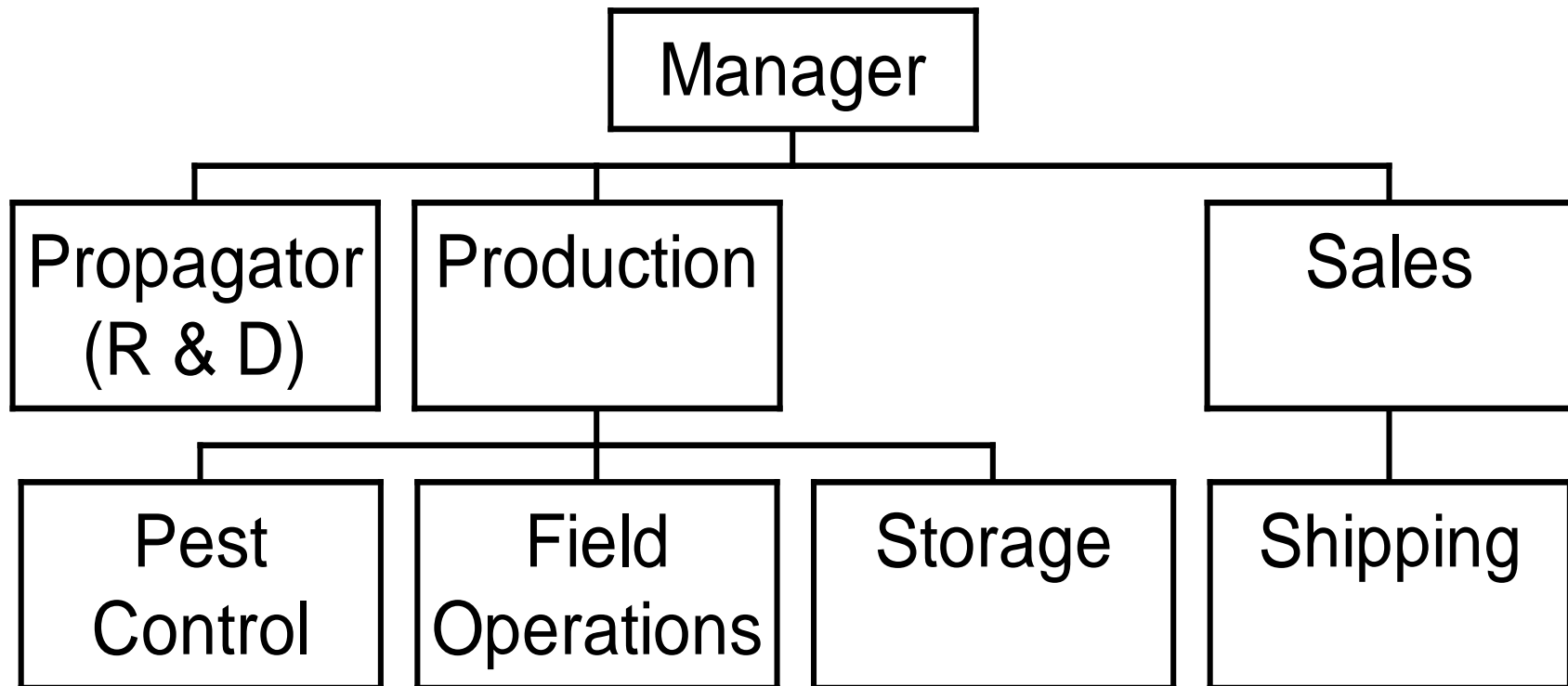
- **Physical**: physical relationship of production and administrative units
- **Functional**: optimizing efficient use of people and their support systems (supplies, equipment, facilities, etc.) to accomplish the organization's various functions
- **Legal**: proprietorship, partnership, or corporation

ORGANIZATIONAL STRUCTURES

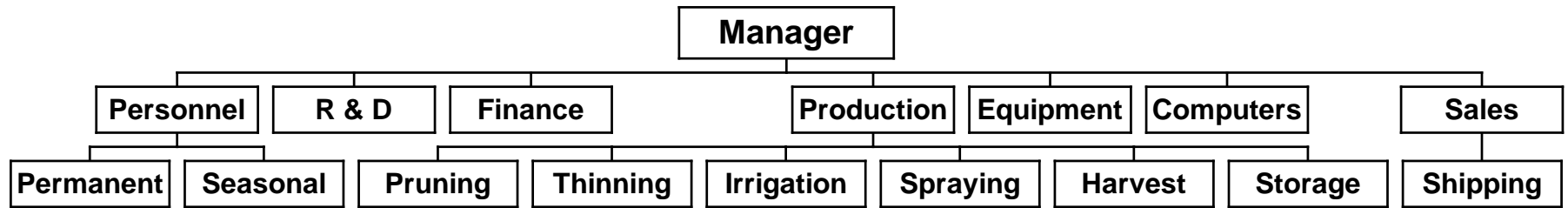
- **Aid in fixing responsibility & authority, and in establishing a “chain of command” (40%)**
- **Improve communication channels (12%)**
- **Clarify reporting relationships (11%)**
- **Improve relationships between departments (8%)**
- **Assist in budgeting, control & supervision (7%)**
- **Assist in management appraisal & training (7%)**
- **Eliminate overlaps & conflicts (5%)**

**Based on survey of 166 corporations
www.lib.uvo.ca/business/ORG_INTRO.html**

NURSERY



ORCHARD



CONTROL & COORDINATION

- **Activities need to keep moving toward the goals determined in the planning process**
- **Control: activities within a unit of the organization**
- **Coordination: activities between units**
- **Includes policies and procedures, records and reports, production targets, and personnel productivity expectations**

MOTIVATION, EVALUATION & REWARDS

- **Motivating & rewarding people is essential for success**
- **Provide training in physical skills, the “art” of horticulture, and a “work ethic”**
- **Apprenticeship:
Laborer → skilled worker → foreman → manager**
- **Rewards based on “fair” performance evaluations**

MAJOR INDUSTRY EVENTS

2007

- Labor shortage, H-2A guest-worker program (complicated & limited), and immigration (politics obstructs progress)
- Apple prices reach 10-year high
- Record production value for ag crops
- Food safety (inadequate enforcement)
- Pest Management Transition Program funded to help producers use softer crop protection chemicals
- Bee “colony collapse disorder,” suspected cause a virus

Source: *Washington State Horticultural Association*