## Utilizing Humor and the Microcomputer to Teach Income Tax Concepts in a Senior-Level Beef Cattle Science Course

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### **Abstract**

Various income tax concepts, specifically applicable to the beef cattle industry, are developed in a senior-level beef cattle science course. Further, "humorous sceranios" involving specific monthly income/expense transactions are utilized to illustate how these income tax concepts are applied in completing a joint 1040 income tax return, first manually and then by microcomputer, for a specific beef cattle operation. Student response to teaching a section on income taxation in the senior-level beef cattle science course and, specifically to utilizing this approach, has been favorable.

#### Introduction

During a typical four year academic program, most students majoring in animal science receive very little exposure to the concept of income taxation, especially as related to the animal industry. A recent survey indicated that individuals involved in teaching beef cattle science courses at various land-grant universities in the Southern Region do not offer an income tax component in their courses. To alleviate this lack of exposure to income taxation, specifically as it relates to the beef cattle industry, an income tax component was incorporated into a senior-level beef cattle science course taught within the Department of

Animal Sciences at the University of Kentucky. Specific income tax concepts are developed using current Internal Revenue Service information and then applied to an income tax "scenario" developed utilizing humor to describe specific monthly income/expense transactions for a beef cattle operation.

#### **Income Tax Concepts**

Specific income tax concepts are developed using information contained in a current copy of Publication 225, Farmer's Tax Guide, available from the Internal Revenue Service. For reference purposes, each student is provided with a copy of this publication. As the income tax concepts are de-

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veloped. considerable emphasis is placed on specific income items and the appropriate schedules/Forms where these transactions should be recorded. For instance, calves born in the spring and sold in the fall are recorded on Schedule F. Profit or Loss From Farming: whereas, the sale of cull breeding cows is recorded on Form 4797, Sales of Business Property. Similarly, cattle purchased and managed specifically for resale are recorded on Schedule F during the year the cattle are sold regardless as to when they were purchased. In general, most students are unaware as to the appropriate schedules/forms where these kinds of transactions should be recorded and have little appreciation as to impact these specific transactions have on self- employment taxes.

Further, most students have little appreciation as to the difference between current and capital expenses. For instance, when dealing with a major purchase such as a hay baler, it is not uncommon for students to respond that the hay baler can be deducted as a current expense during the year of purchase. Thus, they have little appreciation of the fact that expenditures for capital assets must be capitalized and depreciated over a period of years depending upon life of the asset. Items such as asset life, Section 179 expense, half-year convention, mid-quarter convention and applicable declining balance percentages are discussed and applied to the beef cattle industry under the Modified Accelerated Cost Recovery System (MARCS) method of depreciation.

#### Income Tax "Scenario"

After development of the income tax concepts, specifically applicable to the beef cattle industry, students are presented with a 1040 income tax "scenario" involving the monthly transactions for a beef cattle operation located at Box 000. Anywhere, USA 00000, and owned by John Q. Almostbroke (SS# 000-½½½-0000, birthdate 1/1/60, 20-20 vision) and Jane P. Almostbroke (SS# 000-½½¼-0000, birthdate 1/1/61, 20-20 vision); children—Son Q. Dunbroke (SS# 000-½¼-0000, birthdate 1/1/86), Daughter P. Almostbroke (SS# 000-½½½-0000, birthdate 1/1/88). A portion of the 1992 monthly transactions, which were developed utilizing various humorous descriptions, for Mr/Ms Almostbroke's beef cattle operation is illustrated below for the 1992 calendar year:

 1. 1/18/92-sold 70 "No. 1 Piney" steers averaging 352 kg @ \$1.79/kg; 70 "No. 1 Piney" steers were purchased on 8/ 13/91 averaging 180 kg @ \$2.08/kg.

- 2. 2/15/92-attended "Cattleperson's Convention"; drove 4 X 3 "Need'Em Repair" farm truck 285 miles @ \$.28/mile; lodging @\$75/night for 3 nights at "Holiday Out Motel"; food ("Fowl") @ \$25/day for 3 days; "Cattleperson's Convention" registration fee @ \$115; all expenses for lodging, food and registration charged on "Platinum Credit Card", expiration date 2/18/92.
- 3. 3/19/92-purchased 1798 liters "No Smoke'Em, Burn'Em Clean" diesel fuel @ \$.62/liter; purchased license tags for vehicles (personal "Park Street" car @ \$13.75, 4 X 3 "Need'Em Repair" farm truck @ \$32.75).
- 4. 3/21/92-sold 34 1991 home raised "Non-White Baldie" fall-born steer calves averaging 193 kg @ \$2.43/kg.
- 4/15/92-purchased 10 doses "No Sick'Em" cattle vaccine @ \$15.75/dose.
- 4/17/92-purchased 8873 kg 50-5-10 "Grow Em Tall Weeds" fertilizer @ \$2800.
- 7. 4/18/92-purchased 3,785 liters "Unironed Elevated Octane" farm gasoline @ \$.36/liter.
- 8. 4/20/92-filled up personal "Park Street" car (227 liters) out of farm gasoline tank prior to departing for "Loss-Dixie" grocery store in Somewhere, USA.
- 4/21/92-purchased 12 rolls "Tie'Em Tight, No Break'Em" baler twine @ \$35.85/roll.
- 4/22/92-replaced flat "Badyear" tire with "Dunflop" tire on personal "Park Street" car @ \$68.90; paid \$1,050 interest charge on "Bronze Credit Card" for purchase of "Monrow Solid Ride'Em" shock absorbers for personal "Park Street" car.
- 11. 5/8/92-purchased new "Jane Deere" round hay baler @ \$25,750 (Baler @ \$18,000 + Interest @ \$7,750).
- 5/15/92-sold raised "Crossopen" cow 6145 (born 5/15/62)
   \$325
- 13. 5/16/92-880/88 "Mobile Natural Cow Inseminator" sick; Dr. Don't Know, D.D.K.M (Doctor Don't Know Medicine), treated for "I Don't Know Disease" @ \$105.
- 14. 6/22/92-paid phone bill to "You Talk'Em, We Charge'Em Phone Company" @ \$385 (\$75 for personal residence phone; \$310 for farm office phone).
- 15. 6/25/92-paid pasture rent to "Have'Em Pasture, Will Rent'Em Company" @ \$475.
- 16. 6/28/92-purchased "No Rot'Em, No Break'Em" lumber to repair cattle working pens @ \$450.
- 17. 7/6/92-purchased two new rear "Steel Suspendered Badyear" tires for "Jane Deere" tractor @ \$1,885.
- 18. 7/11/92-paid "You Grow'Em, We Mow'Em Company" to mow pasture with "St. Paul-Moline" tractors and "Tree Hogg" mowers @ \$550.
- 19. 7/20/92-purchased "Craftsperson" tool set @ \$55.
- 8/11/92-purchased 887 kg of "Taste'Em Salty" cattle mineral @ \$595.
- 21. 9/28/92-purchased 378 liters "Slap'It On, Spruce'It Up" paint for personal residence @ \$4.37/liter.
- 22. 10/8/92-purchased "Belgian Red Moblie Natural Cow Inseminator" weighing 144 kg @ \$3.95/kg right off dam at "Annual Good'Em Production Sale"; will be developed for use as a herd sire.

- 23. 11/10/92-purchased 100 bushels "RX210 Fatten'Em Up" hybrid ear corn for cattle feed @ \$6.75/bu.
- 24. 11/20/92-paid interest note on farm property (land) mort-gage at "Charge'Em High, Pay'Em Low Bank" @ \$3,750.
- 25. 12/1/92-sold 2 1992 home raised "Level-Eared" springborn heifer calves averaging 175 kg @ \$1.64/kg.
- 27. 12/18/92-paid yearly property taxes to local "You Make'Em, We Take'Em, We Spend'Em County Clerk" @ \$3,262.50 (personal residence @ \$890; personal "Park Street" car @ \$185; 4 X 3 "Need'Em Repair" farm truck @ \$25; farm equipment @ \$760; cattle @ \$450; pasture land @ \$550; barns @ \$385, "Lawn Person" lawnmower @ \$17.50).
- 28. 12/20/92-received \$650 interest payment from "Charge'Em High, Pay'Em Low Bank" for Certificate of Deposit.
- 12/31/92-purchased new 21 1/2 row "Jane Deere" corn planter @ \$1,650; equipment dealer delivered unassembled corn planter in 30 boxes; two wheel bearings missing; dealer to ship missing wheel bearings 1/2/ 93.
- 30. 1/1/93-paid bill @ \$2500 for tractor repair work (leaking value stem) done on 1/5/92 by "Fix'It or Fake'It Tractor Repair".

As a homework assignment, students are required to assume the role of Mr/Ms Almostbroke and manually complete a joint 1040 income tax return as though the return would be filed with the Internal

Revenue Service. All required income tax schedules/forms, and necessary supporting instructions, are provided to the students. After students complete the required homework assignment, one two-hour laboratory is devoted to computerizing the income tax transactions utilizing a commercially available income tax program. Each student computerizes all the income tax transactions for Mr/Ms Almostbroke starting first with Form 4562, Depreciation and Amortization and second with Schedule F, Profit or Loss From Farming. Most other schedules/forms are completed simultaneously by the computerized income tax program as Schedule F is completed.

Computerized income tax programs, although requiring some knowledge of income taxation for their accurate usage, can be very useful as a teaching aid to immediately assess "what if" consequences of specific transactions. For instance, if Mr/Ms Almostbroke qualified for a maximum Section 179 expense deduction of \$10,000 for a capital asset expenditure such as the "Jane Deere" round hay baler purchased on 5/8/92, the computerized income tax program instantly reveals the income tax consequences of taking or not taking this Section 179 expense deduction.

Students are reminded constantly that for each transaction, the following question should be addressed: "What are the possible income tax ramifications associated with this transaction?" It is further emphasized that without a general working knowledge of income taxation, answering this question is difficult and frequently will contribute to ineffective

income tax management for a beef cattle operation. Utilization of the "what if" feature in any of the commercially available computerized income tax programs can be used to conveniently assess the resulting income tax consequences of a proposed major transaction.

#### **Assessment**

Student response indicates that the income tax section, and its many ramifications applicable to the beef cattle industry, is a very helpful and beneficial component of the beef cattle science course. Further, student response indicates that describing the monthly income/expense transactions of the beef cattle operation with "humorous scenarios" helps to

stimulate interest in the overall general concept of income taxation. Previously, Thrift (1974) indicated that humor could be utilized effectively as an aid in teaching specific components of an undergraduate animal breeding course.

A detailed copy of all the income tax material presented in class, all the monthly income/expense transactions for the beef cattle operation and the completed joint 1040 income tax return for Mr/Ms Almostbroke may be obtained upon request from the author.

#### Reference

Thrift, F. A. 1974. Illustrating animal breeding concepts with humor. J. Animal Sci. 38:236. (Abstract).

# **BOOK REVIEWS**

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Richard P. Waldren. *Introductory Crop Science*. Burgess International Group, Inc. 1993. 342 pp. Paper.

This book contains basic information about the principles and practices of crop science. It is presented in fifteen chapters with boldface terms, clear, easy-to-read figures, and review questions at the end of each chapter.

After the fifteen chapters, are twelve laboratory exercises that are applicable to any region and are well-organized and referenced to appropriate material in the previous fifteen chapters.

The author uses specific crops to illustrate the principles being discussed without devoting great detail to the production of individual crops. Thus, an instructor could introduce the necessary details about crops in a local area to complement the material in the book.

Having taught crop science for several years in a marginal cropping area, I have used Mr. Waldren's philosophy without the benefit of having his book.

Mr. Waldren has addressed a void which I have noticed in crop science texts in this decade in the tradition of Martin and Leonard and Heath and Metcalfe but with the latest educational trimmings (instructional objectives) for instructors and an easier-reading style for students.

Part I is introductory and the four chapters include material on the importance and development of agriculture, crop terminology, agroecology, and crop production systems.

Part II devotes seven chapters to soils, seeds, roots, stems and leaves, photosynthesis and respiration, flowering and reproduction, and crop improvement.

Part III discusses relationships among climate, weather, crops, and pests (including, but not limited to, insects, diseases, and weeds) in four chapters.

The laboratory exercises are well developed from both the instructor's and student's perspective. There is room for instructor-furnished material but the novice student would not be lost in its absence.

The laboratory exercises deal with seeds and germination; vegetative characteristics of grasses and legumes; flowers and fruits; growth; growth stages of corn and soybean: effects of light, temperature, and plant nutrition on crop growth; calculations involved with fertilizers, seeding rates, residue management, and pesticide application; and identification of crop and weed plants.

The index is simple and easy to use.

This book appears to have been written for the freshman with little or no prior knowledge of crop science yet is thorough enough in coverage for broad appeal to instructors across the country.

As a long-time teacher of college freshmen in an introductory crop science course, I am favorably impressed with this book. Herb Keith

College of the Ozarks