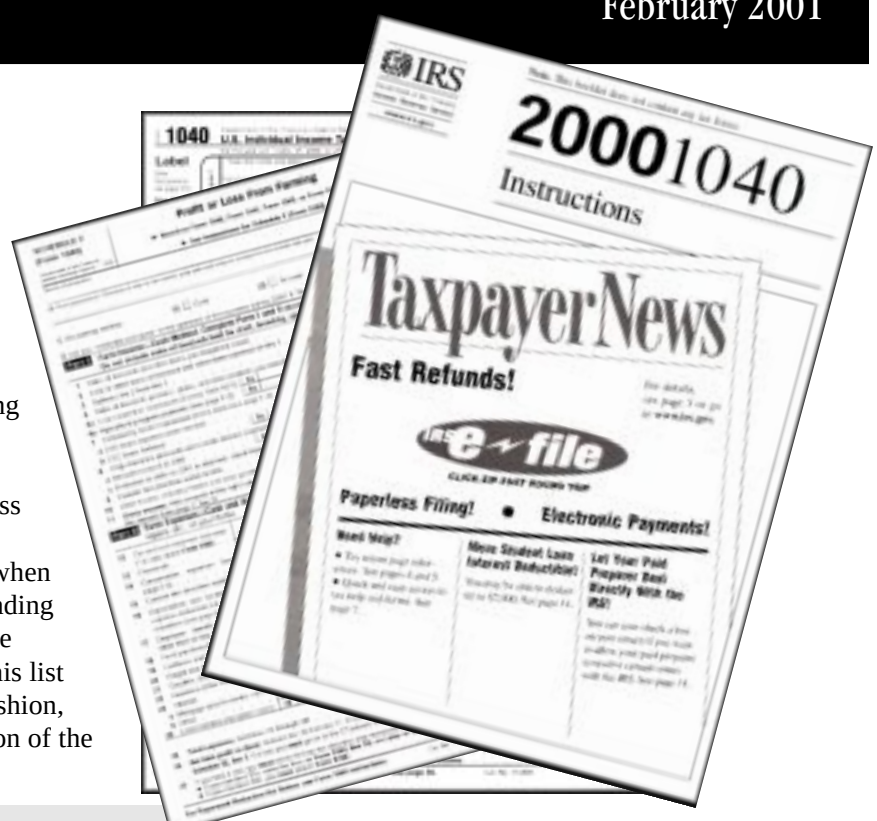
WVU UPDATE
Published as a special insert for Farm Bureau News
Extension Service
West Virginia University
February 2001

‘Test’ helps prove farm is profitable rather than a hobby

By Tom McConnell
Farm Management Specialist, WVU Extension Service



Farmers almost always underreport their expenses for tax purposes. One reason for this is that farmers don’t keep accurate records. This is especially true when they mix their farm accounting with their personal/household checking account or use a personal credit card to pay for some inputs.

Another reason is fear. This idea is usually planted during a conversation, when one farmer proclaims to another: “I heard that you must show a profit three out of five years or the IRS will audit you.”

The threat of an audit can get any businessperson to focus immediately on income tax management. So, with no more information than that, farmers will underreport their expenses so they can show a modest profit and not “draw attention” to their returns by staying within the profit guidelines of the Section 183, or “Hobby Loss” rule of the Internal Revenue Code.

This discussion is not about avoiding an audit or outmaneuvering the Internal Revenue Service (IRS); it is about sufficiently understanding the tax code and your operation so you can farm and report with confidence.

Generally, the Section 183 rule states that a business (farm or not) must show a profit three out of five years to continue to deduct expenses beyond income in the future. Horse farms enjoy an exception in that they must show a profit in two out of seven years. If the business fails to attain this performance, then from that point forward a businessperson will be able to claim expenses only to the point where they match income without exceeding it.

Although this explanation is oversimplified and overlooks the many options the taxpayer has, this is the section that scares many farmers into underreporting their expenses. The Section 183 rule needs further study on the part of the businessperson and his or her tax professional so the individual can manage income taxes from a position of information rather than fear and hearsay.

First the taxpayer/businessperson must know that if he or she meets the threshold of “three of five profitable years,” the burden of determining whether an operation is “not for profit” or a “hobby farm” is placed on the IRS. The taxpayer not meeting the threshold of profitable years has the burden of proving that he or she entered into the farming operation with a profit motive. That does not mean that the case has to be proved at the very moment another tax year starts. It does mean that if loses are taken for more years than allowed in subsection 183, the taxpayer has to be able to supply information (if the return is audited) to support the claim that he or she is trying to make a profit rather than enjoying huge expense deductions to avoid paying taxes on income earned in some way other than in that business

The IRS suggests a nine-point test that a taxpayer must consider when making that determination or defending his or her business practices and the worthiness of his or deductions. This list has evolved in a “common law” fashion, meaning its origin is a simplification of the intent of many court decisions.

You should take into account all of the following points to help prove that you are farming for profit.

1. You operate your farm in a businesslike manner. (As manager, do you have a business plan, have you set goals, do you keep records?)
2. The time and effort you spend on farming indicate that you intend to make a profit. (Do you spend sufficient time and energy on attaining that goal?)
3. You depend on income from farming for your livelihood. (Here, full-time farmers have an advantage, but the income issue relates more to the farmer’s need for deductions than his or her dependence on farm income. Farmers having off-farm jobs to supplement their income depend on their farm income, too.)
4. Your losses are due to circumstances beyond your control or are normal in the start-up phase of farming.
5. You change your methods of operation. (You could begin to winter calves rather than sell them in the fall or finish cattle to slaughter weights; the income could be delayed several months.)
6. You and your advisers have the knowledge to carry on the farming activity as a successful business. (Attending continuing education classes can offset perceived weaknesses in this area.)
7. You made a profit in similar activities in the past.
8. You made a profit farming in other years and can document how much you made.
9. You can expect to make a future profit from the appreciation of the assets used in the farming activity.

You need to make a decision to farm for profit rather than “just for fun.” Floating between the profit and pleasure worlds can be expensive in terms of taxes if you allow the IRS to determine that the business is a hobby, and then it disallows a large deduction on a particular return. Lurking on the edge of deciding about the seriousness of your operation will just lead to frustration and, yes, to the underreporting of expenses.

There is not a part-time operator in the state who thinks he or she cannot make better use of his or her tax money than the federal government. It’s not logical to forego expenses rather than defend the seriousness, dedication, and skill of the businessperson-farmer managing the operation.

There is no documentation suggesting that the IRS thinks two-income farm families are any more or less serious about their farming than their full-time on-farm counterparts. The operator should be confident about his or her mode of operation and should act accordingly with reporting and business practices. The tax code provides a precise way to report income, deduct expenses, and pay taxes.

I have observed that the IRS respects the hard work of West Virginia farmers and tends to be very open-minded about the narrow margins they earn and the cyclical nature of farm profits.

To get started, the small farmer must include a tax professional on his or her management team and then work hard to educate that person about the farm operation and his or her goals. Once the professional has an idea about the farm and the farmer, he or she can represent the farmer better than the farmer can.

To receive more information on this subject or to schedule an income tax session for your farm group, contact me by telephone (304-293-6131, ext. 4237) or e-mail (tmcconne@wvu.edu).

How do we stack up?

By Wayne R. Wagner,
Livestock Specialist, WVU Extension Service

West Virginia is not among the top 10 states in beef production. Only two of the top 10 are east of the Mississippi (Kentucky, No. 8; and Tennessee, No. 10). Tennessee has 1.085 million beef cows compared to about 200,000 cows in West Virginia. So, what do we have in our favor? Not too many people come here to see our cattle, and few in the industry consider West Virginia as a "beef" state. Our own statistics suggest that 75 percent to 80 percent of the state is forested. That leaves little space for beef production, and practically all our production is either cow-calf or stocker.

You may be aware that with the assistance of the West Virginia University Extension Service and the West Virginia Cattlemen's Association, beef producers can feed a sample of their production through the West Virginia Feedlot and Product Information Program (WVFPIP). Cattle in this program are being fed at two feedlots and marketed through two alliances. These two alliances are USPB (US Premium Beef) and Decatur Alliance (soon to be Future Beef).

A summary of the Decatur Beef Alliance for all cattle fed from Oct. 1, 1999, to Sept. 30, 2000 lists one lot of WVFPIP cattle that had an adjusted net return in the top 15 percent for the feedlot. Adjusted net return puts all cattle on an even market so the time of year the cattle are marketed does not affect value.

In my opinion, Decatur County Feedyard feeds better than industry-average cattle so to finish in the top 15 percent is quite an accomplishment. In addition, this lot had a dry matter (DM) feed conversion of 5.6 pounds feed per pound of grain. The feedyard averaged 6.1 pounds, and the national average is probably between 6.5 pounds and 7.0 pounds. A rule of thumb is that for every 1 pound improvement in DM feed conversion, feed cost for calves in the feedlot is reduced by approximately $50 per head.

Last year, the WVFPIP cattle were sent to the feedlot earlier than usual because of the drought. There were 82 steers sent to Decatur, and one calf died. At the end of October 2000, 169 steers and 56 heifers were sent to Decatur County Feedyard and 111 steers and 54 heifers sent to Triangle H. We are still waiting for a feedyard summary from Triangle H so we can make similar comparisons.

However, we do have the closeouts for each pen (2 pens/steers and 2 heifer pens). The first pen of WVFPIP steers had 145 head and a DM feed conversion of 6.1 pounds. They were on feed 186 days and gained an average of 626 pounds for an average daily gain (ADG) of 3.37. The first pen of heifers had 86 head and had a DM feed conversion of 7.1 pounds. They were on feed an average of 201 days and gained 578 pounds per head for an ADG of 2.87 pounds. Feed conversion on the other pen of steers and heifers was more difficult to measure because these cattle had been on wheat pasture before entering the feedlot. The steers gained 737 pounds and had an ADG of 3.14 pounds. The heifers gained 698 pounds for an ADG of 2.79.

The table shows the distribution for quality and yield grade for the 1995 National Beef Quality Audit and cattle harvested from WVFPIP in 2000. Averages for Prime, upper two-thirds Choice, Low Choice, Select, and Standard from Decatur in 2000 were 2.5, 13.4, 41.5, 40.2, and 2.4 percent, respectively.

The distribution for quality grade in the steers from Triangle H were 2.8, 21.8, 41.2, 31.0, and 3.2 percent, respectively, for Prime, Upper two-thirds Choice, Low Choice, Select, and ungraded. Percentages for heifers were 0.8, 21.5, 48.5, 26.9, and 2.3 for Prime, Upper two-thirds Choice, Low Choice, Select, and ungraded, respectively.

The distribution for yield grade (YG) in steers was 1.9, 34.8, 59.2 and 4.1 percent for 1, 2, 3, and 4, respectively. The distribution for YG in heifers was 11.5, 50.8, 35.4, and 2.3 percent for 1, 2, 3, and 4, respectively.

The WVFPIP cattle marketed through Decatur in 2000 were similar to the feedyard average in ADG, HCW (hot carcass weight), percent Choice and better, and percent YG 1 & 2. Death loss and percent Standard for the WVFPIP cattle were slightly higher

Continued on page 4

Distribution of Quality and Yield Grade for the 1995 National Beef Quality Audit and the 2000 West Virginia Feedlot and Product Information Program (a)

	1995 Audit	Dacatur County (b)	Triangle H (b) Steers	Triangle H (b) Heifers
Quality Grade				
Prime	1.3	2.5	2.8	.8
Upper 2/3 Choice	11.4	13.4	21.8	21.5
Low Choice	35.6	41.5	41.2	48.5
Select	46.7	40.2	31.0	26.9
Standard/ungraded	4.7	2.4	3.2	2.3
Yield Grade				
1	12.6	7.3	1.9	11.5
2	45.3	51.2	34.8	50.8
3	34.2	41.5	59.2	35.4
4	7.1	0	4.1	2.3
5	0.8	0	0	0

(a) Percentages
(b) Cattle fed through the West Virginia Feedlot and Product Information Program and harvested in 2000. Data collected on 82 head at Decatur and 430 head at Triangle H.

WVU alumnus named agriculture dean

By David P. Welsh
Public Relations Specialist, WVU College of Agriculture, Forestry, and Consumer Sciences


Hackney

The new dean of the West Virginia University College of Agriculture, Forestry, and Consumer Sciences is also an alumnus of that academic unit. Cameron Hackney earned his B.S. and M.S. degrees in 1973 and 1975, respectively. He joined the college and West Virginia Agricultural and Forestry Experiment Station in July.

Hackney, a native of Kanawha County, returned to WVU after serving at Virginia Polytechnic Institute and State University as head of the Department of Food Science and Technology. At Virginia Tech, he also held roles as professor, Extension project leader, and superintendent of the Virginia Seafood Agricultural Experiment Station. He earned his Ph.D. from North Carolina State University in 1980, and he taught at Louisiana State University before beginning his 15-year tenure with Virginia Tech.

"I am thrilled to return to West Virginia and lead the work of this important college," Hackney said.

Hackney's initial priorities include touching base with the college's varied constituent groups in the state and region. "This college is central to WVU's land-grant mission, and our teaching, research, and service activities are uniquely suited to fostering economic development in the region. We're ideally positioned to help create jobs, enhance the environment, and bring sustainable industry to West Virginia."

"The college is blessed with dedicated, knowledgeable faculty and staff, and we have a strong student body," the new dean said. "I'd like to see us develop stronger partnerships with state and federal agencies, Extension and other WVU academic units, and especially with industry."

Another goal is to support and expand the innovative, multidisciplinary research executed by the college's five academic divisions. "Many of our research efforts–aquaculture, water quality, community design–cut across disciplines and draw in a range of perspectives," he said. "I'd like to nurture this trend; I think the potential benefits are substantial.

"Both of these priorities–strengthening partnerships and promoting multidisciplinary efforts–would be aided by improved facilities," Hackney said. "That's another critical item on the agenda."

"No university in the country does a better job of welcoming first-generation college students and preparing them for careers," Hackney said. "WVU is easily the most student-centered academic institution I've encountered."

An award-winning teacher, Hackney credits WVU with helping form his educational philosophy. "If you believe in students, expect hard work, be fair, and show an interest, they'll give you 110 percent," he said. "The College of Agriculture, Forestry, and Consumer Sciences has always adhered to this philosophy, and I'm honored to be a part of that tradition."

Genetic engineering

Part 2: Pros and cons of genetically engineered crops

By Rakesh S. Chandran
Extension Integrated Pest Management Specialist, WVU Extension Service

Genetically modified crops have generated much public interest and controversy. A *New York Times* article (Dec. 15, 2000) indicated that the scientific information available today is not adequate to draw conclusive deductions on the crops' potential benefits or risks to the environment. The article was based on a review of refereed journal articles published in *Science* (December 2000).

Genetically modified crops (transgenic crops) are best known for their abilities to resist pests (weeds, insects, and diseases) or for produce containing high nutrient levels. Transgenic crops capable of manufacturing vaccines and other pharmaceuticals are also in the pipeline. Some of the well-known transgenic crops on the market today are Roundup Ready Soybean, Roundup Ready corn, Bt Corn, IMI corn, etc.

In the previous article (*Farm Bureau News*; vol. 8, no. 11), I discussed the basic principles of genetic engineering. Now that we have the background information, let's examine some of the pros and cons of the technology in agriculture.

Allergies. Eating certain transgenic foods has occasionally led to the development of allergies. A study reported in the *New England Journal of Medicine* in 1998 showed that people consuming transgenic soybean intended as animal feed developed certain allergic reactions. Transgenic crops marketed for human consumption have not been linked directly to causing widespread allergies.

Monarch butterfly mortality. Recent studies reported in *Science* and *Oecologia* journals suggested that pollen from the transgenic Bt corn may be fatal to monarch butterflies, which feed on milkweed coated with corn pollen. Scientists have confirmed the mortality of monarch butterflies exposed to Bt corn pollen under both laboratory and field conditions. Proponents of the technology claim that under field conditions the concentration of pollen on milkweed may not reach levels that cause lethal effects. Scientists from Iowa State University are examining this more closely, and their findings should be published soon. A study published in *Nature* (1999) indicated that secretions from remains of Bt corn adversely affected certain other soilborne nontarget insect species.

Soil Erosion. Herbicide-tolerant crops are used for post-emergent weed control in no-till farming. This reduces the need for tillage, which in turn reduces soil erosion and nutrient losses. A potential environmental risk comes with this technique because it involves total vegetation control, which may affect an ecosystem's species diversity.

Herbicide-resistant weeds. The evolution of "superweeds" capable of resisting herbicides as a result of using herbicide-tolerant crops has been a topic of public interest. Such a phenomenon is highly unlikely because there are more than 12 distinct groups of herbicides displaying different sites and modes of action (*Herbicide Handbook*, Weed Science Society of America). The popular herbicide, Roundup, is only one member of one of these herbicide groups. Therefore, the likelihood of a weed becoming resistant to all known herbicides is almost impossible. The same argument and counter-argument are true for "escapes" of transgenic plants into the surrounding habitat.

Food Supply and Pesticide Usage. Transgenic crops may provide increased profits to the farmer while providing cheaper and more nutritious food. Genetic engineering also has helped make crops available that could not otherwise tolerate adverse environmental conditions (drought, cold, high salt levels in the soils, etc.). Such crops are capable of resisting pests, generating higher yields, and producing food with high nutrient content. They are considered an effective means of dealing with pest problems while reducing production costs.

Opponents of the technology argue that transgenic crops would increase our dependence on pesticides. This may be true in some instances but not in others. For example, Bt corn reduces the need for insecticides since this transgenic corn can produce toxins to kill the European corn borer pest, which otherwise would require insecticide applications. Indirect benefits of reduced insect damage include lower levels of fungal toxins associated with insect-damaged corn.

Gene flow. The flow of transgenes into other organisms through pollution (termed "genetic pollution") may pose unknown risks to the ecosystem. Once these genes are released, it is difficult to recall them. Proponents of the technology claim that this form of gene pollution is similar to introducing alien species into an ecosystem. The ecosystem is dynamic, and human interference caused it to change throughout history. Some organisms have become a nuisance although they were originally introduced as a biological control agent (e.g., Japanese ladybug).

Crop diversity. Because genetic engineering focuses on crops with certain highly desirable traits, genetic diversity within the crop could be diminished. This can make crops more susceptible to natural calamities such as disease outbreaks. Such problems also have been encountered with hybrids generated by traditional breeding techniques.

Faster breeding. A possible benefit of transgenic crops or animals is that they can be bred for desirable traits very precisely and much faster than when traditional methods are used. The related disadvantage is that because the actual "breeding" in genetic engineering is carried out under laboratory or sterile conditions, the implications under field conditions may not be fully understood until a problem arises.

Nutrient levels. Certain transgenic crops (e.g., "golden rice" capable of synthesizing the precursor of Vitamin A) are capable of producing higher amounts of nutrients and vitamins, which could be have a great impact on solving nutrition problems in heavily populated and underdeveloped countries.

Continued on page 4

WVU Update Survey

To help us provide articles of interest to you, please complete this survey and return it to Update, WVU Extension Service, PO Box 6108, Morgantown, WV 26506-6108. Those replying will receive a WVU souvenir.

Please indicate how much of the WVU Update you usually read:

☐ All or most of the stories ☐ Half ☐ Less than half ☐ Don't read it

Please rate the following from 5 to 1, with 5 being excellent and 1 being poor (circle one):

How do you rate the Update in terms of meeting your expectations? 5 4 3 2 1

How do you rate the stories for usefulness of information? 5 4 3 2 1

What subjects would you like to see covered in Update?_____

_____

_____

Name:_____

Address:_____

Video, handbook help landowners determine stream quality

By Jeff Skousen
Extension Specialist and Professor, WVU

Do you know the quality of streams entering your property? A few months ago, I received a call from a farmer who suddenly noticed his cattle were unwilling to drink the water in a stream running through his property. He wanted to know why.

When visiting the farm, I noticed that the stream drained an area that had been surface mined 20 years ago. It also received the drainage from underground mines that had operated more than 40 years ago. Water samples showed that the acid concentration in the water was high enough that the cows would not drink the water. It is unclear why the stream's acidity had changed suddenly, but it is probable that recent roof falls and shifting of materials within the underground mines caused a degradation in water quality and a higher level of acid in the stream.

This farmer has asked a local watershed group for help. The watershed group now is documenting the quality of the stream in hopes of receiving funds to treat the water. The farmer is contacting legislators in his area to support the dedication of funds to cleaning streams impacted by acid mine drainage and other serious contaminants.

To help such farmers and watershed groups, the West Virginia University Extension Service and the Downstream Alliance have produced a new stream quality video and handbook. The video and handbook *You Can't Judge a Stream by Its Color* will help landowners and watershed organizations understand principles and methods of characterizing stream quantity and quality. In this region, the cleanup of streams affected by acid mine drainage is a high priority. If the quality of the stream and the degree to which it is impaired are known, the stream may be eligible for federal and state funds to remediate the problem and to construct a treatment system at no cost to the landowner.

The 30-minute video highlights methods of determining flow rates and the use of field test kits to determine quality. Such tests include water pH, water acidity and alkalinity, electrical conductivity, and oxygen content. The video also describes a method to determine the stream's benthic organisms in the stream, which are used to gauge the stream's biological health. The handbook contains field monitoring sheets to use during the sampling process.

You Can't Judge a Stream by Its Color can be purchased for $20 (for both the video and handbook) by calling Ron Hamilton of Telestrella Productions in Dunkirk, Md., at 301-855-8826. The handbook is available in PDF format on the WVU Extension Service's Web site (www.wvu.edu/~agexten/landrec/land.htm). The site includes other stream quality and acid mine drainage information.

How do we stack up? *(continued)*

than the feedyard average but better than the national average. There were no discounts in our cattle for carcass weights that were either too heavy or too light. The average was 747 pounds, which I think is where you want steers to be.

This suggests that at least some West Virginia cattle are capable of competing with cattle from anywhere in the country. Even if we do not have the numbers of Texas or the reputation of Montana, we do not take a back seat to them in the kind and quality of cattle produced. The WVFPIP cattle far exceeded the national average for Choice and above and had about half as many standard or ungraded carcasses.

Genetic engineering *(continued)*

Resistant microbes. Although there is no evidence, there are claims that transgenic crops may lead to the release of resistant strains of microbes into the environment by plants. This has been contradicted by proponents of the technology who state that such risks are highly unlikely compared to similar releases from medical or veterinary practices.

Pharmaceuticals. Researchers are testing transgenic plants that are valuable to farmers and consumers now. They are capable of producing vaccines, pharmaceuticals, and other materials used in the medical industry. But their ability to safely contain such products has been questioned.

Disease pathogens. Plant pathogens capable of causing cancers *(Agrobacterium tumefaciens)* are used sometimes to carry the novel genes into the transgenic plants. There is a low likelihood that such pathogens could recombine with their equivalents in the plant and cause new plant diseases. Other techniques (e.g., "gene gun") can be used to insert genes into the DNA of an organism, which may rule out the possibility of such recombining.

Several more arguments for and against the use of this technology are found in the media today. Most of them are subjective and speculative. The topic is a very complex one, the ramifications of which may involve many disciplines. Therefore, future research may provide answers to some of the uncertainties we face now.

WVU UPDATE

The West Virginia University Extension Service and the WVU College of Agriculture, Forestry, and Consumer Sciences are pleased to offer this educational insert to the Farm Bureau NEWS as a service to West Virginians. We welcome your questions or comments.

Joyce Bower and Donna Colebank, *Editors* (304) 293-4221

Pat Kerns, *Graphic Designer*

Edmond Collins, William Grafton, John Jett, Shelly Knight, Sue Miles, Wayne Wagner, and David Welsh, *Editorial Planning Committee*