

## Agricultural Aptitude Test

The following test is a challenge that we came up with about twenty years ago when one of our teenage interns told his parents, "I don't need to finish school because I'm going to farm"! While it may be true that you don't necessarily need to graduate college to be in production agriculture, you certainly need to have an open mind with regards to ongoing education. I don't recall how our intern scored but the point was made and he went on to a successful military career and became an entrepreneur.

Perhaps you would like to take our test for yourself. Even if you don't see yourself as becoming a farmer someday, it may give you an insight into the world of agriculture that you hadn't considered before. Good luck!

1) What does GPS mean and would you use it on your farm? Why or why not?

*Global Positioning Systems are technologies that involve satellite transmission of pertinent data about field topography, nutrient levels, yields etc. Answers will vary, but the bottom line is that as a business person you must decide if its benefits outweigh its costs and will it increase your profit.*

2) What does NMP mean and would you use it on your farm? Why or why not?

*Nutrient Management Plans are a document that balances the needs of your crops with the amount of fertilizer you have. To answer the why or why not you'd better be aware of your state's laws regarding which types of farms are required to have a NMP.*

3) You are prepping your New Holland TL 90 tractor to plow the back 40. You plan on plowing for 4 hours. You put 4 gallons of gas in the fuel tank. If your tractor consumes 1 gallon of fuel per hour should you take along any extra gas in order to plow and drive back to the machine shed?

*It won't make any difference if you take any extra gas because this tractor runs on diesel fuel. Maybe next time you will educate yourself by reading the owner's manual instead of ruining a \$30,000.00 piece of machinery!*



4) You need to coat the seeds in your broadcast spreader with bacteria would you use E.Coli or Rhizobia?

*If you read up on your biology you'd know that by coating your legume seeds with rhizobia bacteria you are helping them to fix atmospheric nitrogen into the soil. If you coated them with E. coli I think you'd better drink some Pepto-Bismol and run to the nearest bathroom.*

5) Before there was Geek-speak there was Farm-speak. Can you identify the following?

*IPM-----integrated pest management*

*FSA-----Farm Service Agency*

*TDN-----Total Digestible Nutrients*

*ADG-----Average Daily Gain*

*PTO-----Power Take Off*

*NPK-----Nitrogen, Phosphorus, Potassium*

*PLS-----Pure Live Seed*

6) True or false a compact soil structure allows you to drive heavy equipment across the field and makes for optimum plant growth.

*False. Roads are compact; fields should be aerated and friable.*

7) Pharming is a term that is sometimes used to describe the enhancement of food with medicinal qualities i.e. insulin in milk. But, the term nurse crop was in use long before these medicinal enhancements. Define nurse crop.

*Usually a small grain which is sown in the fall along with a hay crop, it is grown in order to protect the hay crop from harsh weather.*



8) True or false, green manure is what's left after a cow eats too much grass.

*False, green manure is a crop that is grown with the specific goal of working it back into the field on which it was grown in order to fertilize the soil.*

9) If fescue grass seed cost \$70.00 for 50# and timothy seed cost \$30.00 for 50# which would be the most economical to sow for stockpiled winter grazing? Why?

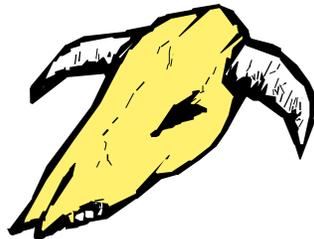
*Fescue is the better choice for stockpiled winter grazing because it doesn't deteriorate as quickly as timothy in cold weather.*

10) What was a standout feature of the 1996 Farm Bill?

*It removed many of the Farm Subsidies.*

11) There are an increasing number of hobby farms in this country. Even popular magazines like Mother Earth News have recognized this trend and are trying to offer the new comers some tips on how to save money when fencing in their livestock. For example during the 1930's farmers in the Midwest planted trees to form fences and check wind erosion. If you had a windy field and wanted to fence in livestock would a hedge of boxwoods or yews be cheaper than traditional fencing?

*Green fencing may be cheaper than traditional posts and wire you would have to run a cost analysis to know for sure. In this instance however, you would be better off with the posts and wire because if you use boxwoods or yews all of your animals may die due to toxins in these two plant types. Lesson? Do your homework before you commit to the test!*



12) How does the Potomac River Basin Strategy and the Chesapeake Bay Initiative affect farms here in the valley?

*They both call for a reduction of nutrients flowing into the Chesapeake Bay. Valley farmers are concerned because they are identified (without the use of sound science) as the major contributors of these nutrients, never mind wildlife, homeowners, municipal sources etc. Even though many farmers know that they have a responsibility to the health of the Bay (hence their use of NMP and buffer strips etc.) they are worried that unfunded state mandates could force them out of business to take corrective measures that we all have a share in.*



13) When you want to harvest green and leafy hay, what would its ideal moisture content be?

- a. 10-13% b. 15-18% c. 19-21% d. over 22%

*If the hay doesn't have a low enough moisture content it can spoil or worse yet, spontaneously combust, however if it's too dry the leaves become too brittle to harvest. The correct answer is A.*

14) True or false, when hauling something in the front end loader of your tractor you should raise it as high as possible so that you can see where you are going.

*False, raising the load too high can raise your tractor's center of gravity causing an accident: either by overturning the entire tractor or causing your load to fall on top of the driver. The safest loader position is high enough to clear the ground and low enough to see over.*

15) When you want to harvest nutritious leafy green haylage what would its ideal moisture content be?

- a. 10-13% b. 15-18 % c. 19-21% d. over 22%

*Haylage needs high moisture and anaerobic fermentation in order to be properly preserved.*



16) Consider the following scenario.

Your hay baler has just broken down during the peak of the hay making season and it needs to be fixed right now or you will lose an entire field of hay valued at a \$5,000.00. The bull just broke through the fence and is breeding heifers that are too young. If you don't get him out now those 10 heifers valued at \$500.00 each could die at calving time and you'll be out 8 years of 10 cows each producing a calf worth \$500.00 each. Before you start on these problems the phone rings and a very busy produce buyer wants to buy your entire current tomato crop valued at \$5,000.00 with an option for a 3 year contract plus quality bonuses, and you can't put him off until later. Oh, and don't forget you have to pick the kids up in an hour or they'll miss the bus to their big game. What would you do?

*There really is no right or wrong answer as long as your answers are supported with logical reasons, and accomplish the goals of the task at hand.*

So how did you do? Did you get all of the answers correct on the first time? If you have a working knowledge of science, finances, politics, mechanics, time management, animal husbandry, physics etc. I'm sure it was a snap. If not and you still want to be a farmer you'd better stay in school. At the very least now you know that farming is more than bib overalls and a straw hat. Incidentally ever wonder what's up with the straw hat and bibs? The wide brim hat offers protection from the sun to help prevent skin cancer and the bibs offer warmth without restricting movement, while protecting the body from stickers and thorns. Looks like you'd better add the study of human health to your list of things to know!

