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Farming & Hearing Loss: A Photonovel

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FARMING & HEARING LOSS: A PHOTONOVEL



Farming & Hearing Loss

A Photonovel

Introduction

This photonovel gives you information on how to protect you and your family against hearing loss while working on your farm. The main characters in this story live on a farm in Warren County, Kentucky. Jacob and his Pappaw (Jim Bates) explore the reasons why Jim has partial hearing loss. Jacob and Jim go to Dr. W. G. Begley's office in Bowling Green, Kentucky, where Jim is first examined by Dr. Begley and then referred to Jan Martis, staff audiologist, for hearing tests. After the examination, because Jim does not want Jacob to lose any hearing, he takes his grandson on a tour of the farm to explain how Jacob can protect his hearing.

Hearing loss was identified by women in your community as being a major concern to the health and safety of their families. The authors (The Kentucky Partnership) have taken great care in not exaggerating the results of what would happen if proper care is not taken when operating machinery on the farm. Because you are the individuals who control the health and safety practices on your farm, we hope you will take the necessary actions to reduce the risks of hearing loss. Please, if not for your own safety, be cautious for those who love you! Remember the extra time it takes to be safe pays off in terms of time, money, and your family's health.

Instructions for Using the Photonovel

Read through this novel and look at the pictures. Follow Jacob and his Pappaw and find out what caused Jim's hearing loss. Throughout the story there are **THINK BOXES**. Pay special attention to these. At this point you should be considering how you and your family are exposed to noise on your farm. These are the points in the story where your opinion is of tremendous value. If you are working with a group, share your opinion about Jim's problem! What would you do? Has this ever happened to you or someone in your family? And most importantly, what have you done or will you do to prevent the loss of your hearing? Now, let's get to the story and have some fun!!!!



Elizabeth and Jacob are talking at breakfast, discussing Jacob's plans for this beautiful summer day.

Jacob: Mom, I think I'm going to call Pappaw and ask him to take me fishing.

Elizabeth: What a great idea! It certainly is a perfect day for fishing. Give him a call. He would love to hear from you.





Jacob: Thanks for coming to get me, Pappaw. I really love going fishing in your farm pond. Do you think we will catch something?

Pappaw: What Jacob? What did you say?

Jacob: (Shouting) I asked you if you thought we would catch something today?

Pappaw: Oh sure. We'll catch something...don't we always? Jacob, talk into my right ear so that I can hear you.

Jacob: Pappaw, why can't you hear me? Is it because you were in the Army?

Pappaw: Well, Jacob, being a Gunner in the Army probably caused some of my hearing loss... But I also have some hearing loss because I have operated farm machinery without using hearing protection.



Jacob: Why haven't you gone to the doctor to have it fixed?

Pappaw: I don't know, Jacob. I guess I lost my hearing so gradually that I just thought it was due to old age. I didn't think anything could help me.

Jacob: Pappaw, I hate having to shout at you. And you talk so loud sometimes it hurts my ears! Mom says after I spend time with you I yell for a week.

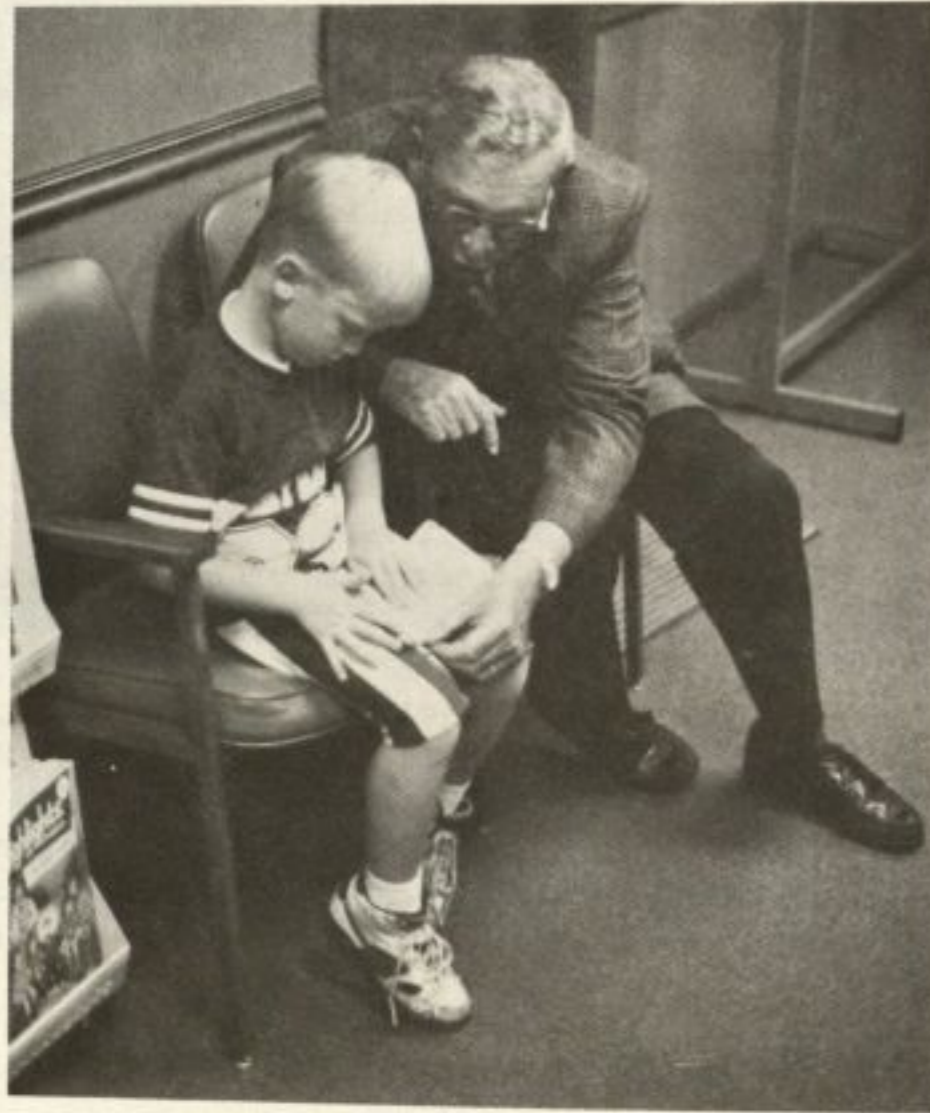
Pappaw: Is that so? What else does your mom say about my hearing?

Jacob: She says you should go to a hearing doctor to see if anything can be done to help you.

Pappaw: Well maybe we should venture into town later in the week to see about my hearing. Now let's concentrate on catching a fish. You got one Jacob!!! Reel'em in!!

Think Box

Do you or does someone you know exhibit the tell-tale signs of hearing loss? Symptoms can include misunderstanding words in a conversation, not responding when being spoken to, frequently asking people to repeat what they've said, or a ringing sound in your ears.



A few days later, as promised, Jacob and his Pappaw are visiting the Ear, Nose, & Throat Doctor. After a normal ear exam by Dr. Begley, Jim is referred to the audiologist for a hearing evaluation.

Jacob: Pappaw, are you ready for your hearing test?

Pappaw: You bet, Jacob. When I called for an appointment, the audiologist explained to me that the hearing tests are not painful.

Jacob: The who?

Pappaw: The audiologist, Jacob. A person who tests people with hearing problems and counsels them about their hearing loss and what can be done to improve their hearing. The audiologist who will test me is Jan. Here she comes now to take me to her office. Do you want to watch?

Jacob: Yeah, I may get my hearing checked too!

Think Box

An audiologist can be a staff member at an Ear, Nose, and Throat Specialist's office, local speech and hearing center, university speech and hearing clinic or hospital, rehabilitation center, or have a private practice. An audiologist is a college graduate who has earned either a Master's Degree or a Ph.D. in audiology and hearing science, and is trained in the evaluation of hearing and rehabilitation and prevention of hearing loss. Do you have an audiologist in your town? Where would you go to get your hearing checked?



Jan is now testing Jacob's Pappaw to determine what is wrong with his hearing.

Jan: Mr. Bates, first I'll look in your ears. I want to be able to see your eardrum. Many patients have earwax which blocks the ear canal, and this can be easily removed by the doctor. I also want to make sure that your ear canals won't collapse from pressure of the headphones, so that we can obtain accurate results. Mr. Bates, I don't see any earwax in your ears.

Pappaw: That's good!

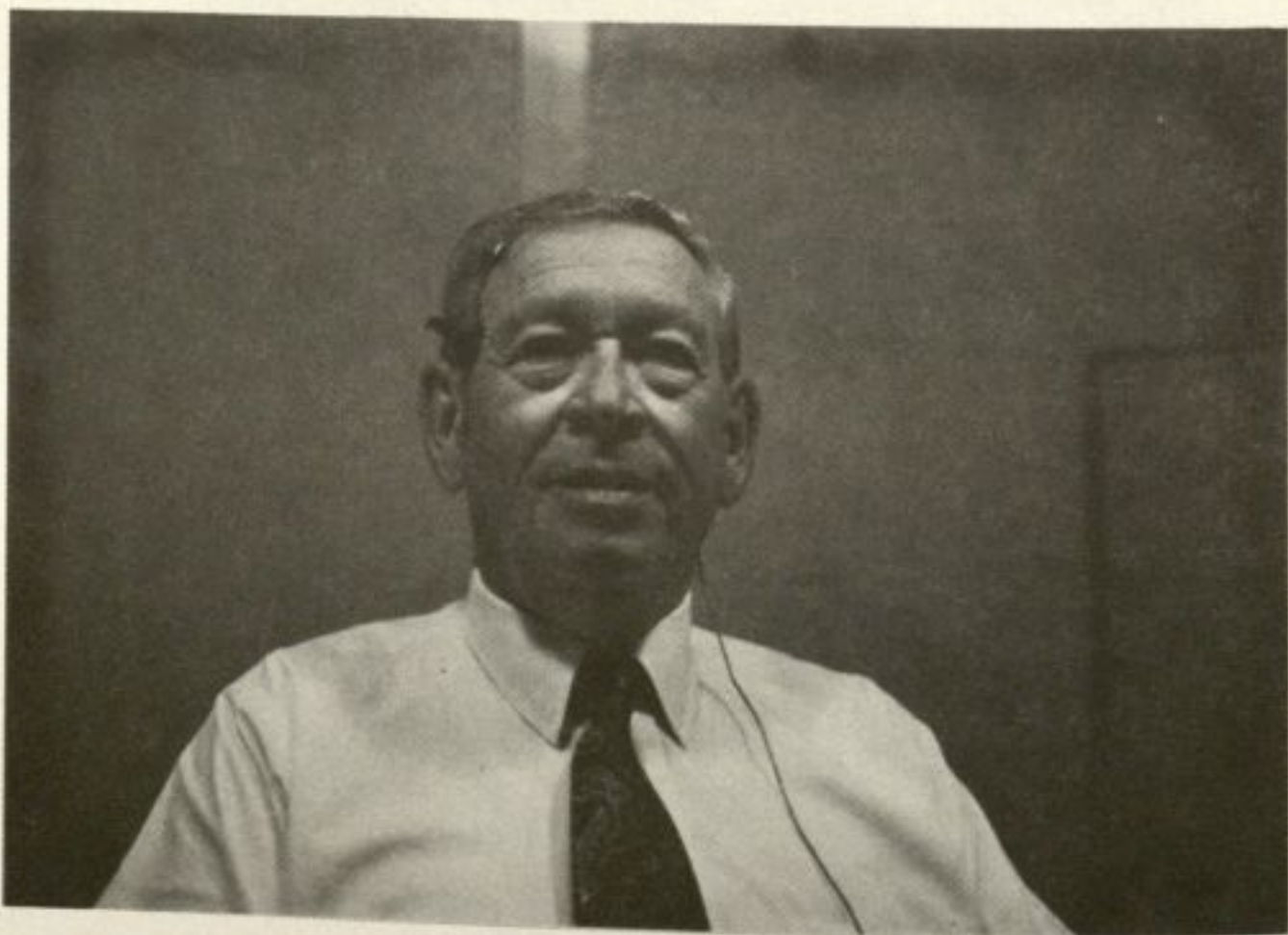
Jan: Next I'll do a tympanogram. This test checks eardrum mobility. If results are abnormal, it may indicate a middle ear problem which can be medically treated. You'll feel some pressure in your ear, but it should not hurt. Please do not talk or swallow during the exam. It will take about 10 seconds on each ear.....Mr. Bates, your tympanograms show normal eardrum mobility. Are you ready for the next test?





Pappaw: This is the test I remember. I listen for tones in either ear and raise my hand on the side that I hear the tone, right?

Jan: That is correct, Mr. Bates. It is called a pure tone air conduction test. Please come into the sound booth. First you'll listen through the headphones. Please raise your hand each and every time you hear the tones no matter how faint they become. (Jan closes the door to the sound room and administers the test from outside).



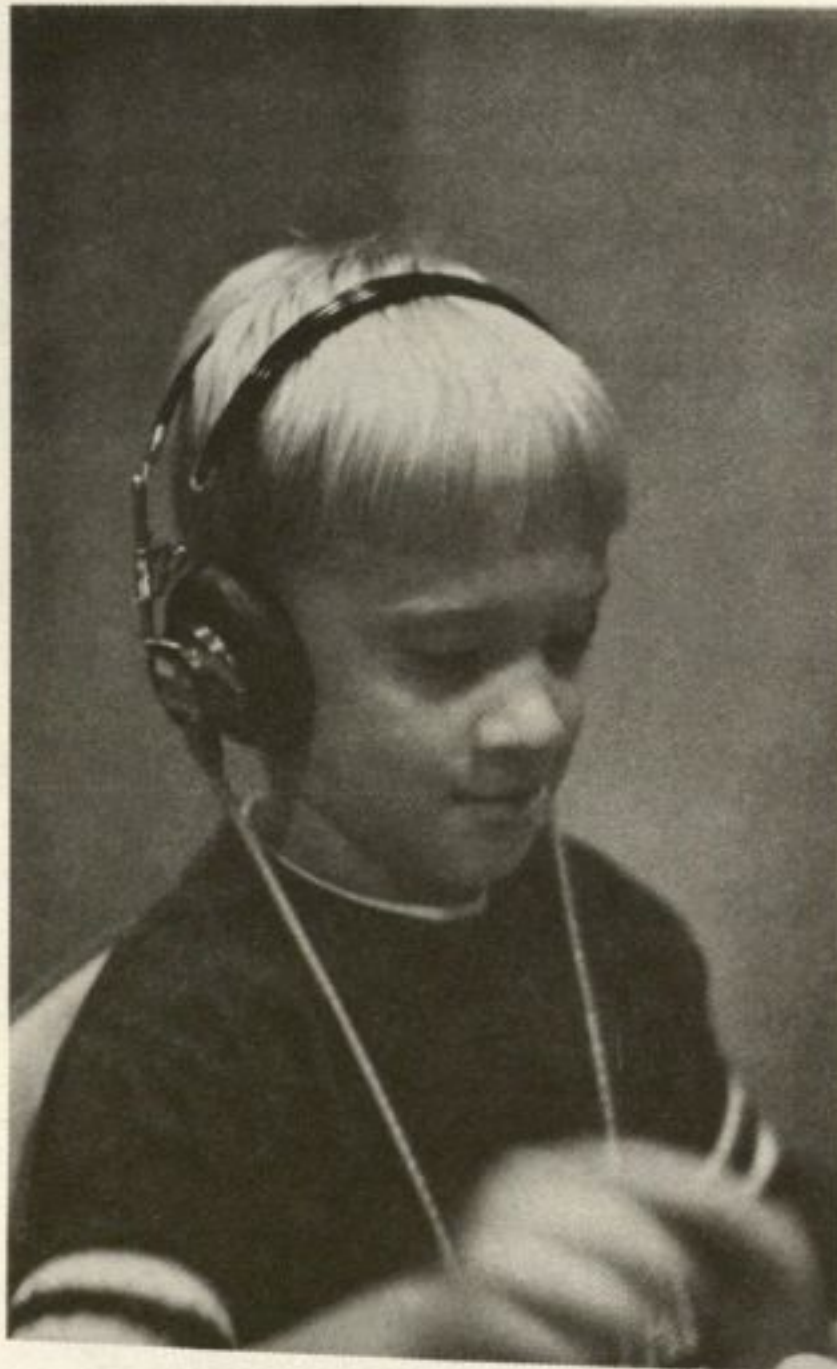
Jan: Next I'll do a bone conduction test. I'll place this bone conduction device behind your ear. Please listen and respond to the tones as you did before.

Pappaw: Jan, what does this test do?

Jan: This test checks the integrity of the inner ear or cochlea through bone vibration. With this test, we can determine if you have a conductive hearing loss, a medically treatable problem of the outer or middle ear, vs. a sensori-neural hearing loss, a problem involving the inner ear, which in most cases cannot be helped by medical treatment.

Think Box

More than likely most of you have had one or more of these hearing tests. Do you remember where and when you had your last hearing test? What about the other members of your family?



Jan: After performing these tests, Mr. Bates, we find that you have a sensori-neural hearing loss in both ears. Your hearing loss is worse in the left ear, and your hearing loss is greater in the higher frequencies.

Pappaw: I think the last time I was tested the doctor said I had nerve deafness. Is that the same thing?

Jan: Yes. You have some damage to the structures in your inner ear. That means that your hearing loss is permanent. Your hearing may become worse with age, but exposure to excessively loud noise can cause your hearing to deteriorate more quickly than it would from normal aging. That is why you should avoid loud noise or wear hearing protection when you are exposed to loud noise. Now we will perform some speech understanding tests to rule out the presence of more serious medical problems and to determine if you would be a candidate for hearing aids... Mr. Bates, after reviewing your test results, it is my opinion that a hearing aid may help you hear better. Dr. Begley will now talk with you about your results and whether any medical treatment is advised.

Jan: I've finished testing your Grandpa, Jacob...do you want to try?

Jacob: Oh could I? That would be really cool!!

Think Box

Children should have their hearing checked if they show symptoms that suggest a possible hearing problem or if they fail a hearing screening test given at school. What do you think are some of the signs or symptoms of hearing loss in children?



A week later Jacob and his Pappaw are getting ready for another fishing trip.

Pappaw: Jacob, before we go fishing today, I want to show you a few things around the farm that I believe contributed to my hearing loss. The doctor explained that I have nerve damage as a result of long term exposure to loud noise.

Jacob: Oh come on, Pappaw! I'm not going to lose my hearing like you did.

Pappaw: You bet you're not! And one of the reasons you're not is because we are going to take a few minutes to talk about these machines, mufflers, and EAR PLUGS!!!

Jacob: OK, Pappaw. Let's go.

Pappaw: First let's discuss this old tractor. Even though it has a muffler on it, you should always wear ear plugs while it is running. When backing up, see how my left ear is directly in line with the muffler. It is probably not a good idea to wear radio headphones in place of hearing protection because you may turn the volume up too loud to hear over the tractor.

Think Box

While operating a tractor do you wear ear plugs or ear muffs? If your tractor has a cab do you think you need to wear ear plugs? If you wear headphones do you play the music too loud? It is important to recognize all safety concerns. Can you identify another potential hazard associated with this tractor? Hint: ROPS!!



Pappaw: Jacob, two very common machines that make a lot of noise are lawn mowers and string trimmers. See how I am wearing my ear plugs while I'm operating them. You know it actually makes using these things more comfortable.

Jacob: Yeah, I know, Pappaw. They are really loud. I know that Mom makes Dad wear ear plugs when he's out mowing our lawn. She puts them in an old film canister attached to the mower. That way Dad doesn't forget to take them with him!

Pappaw: Your mom is a smart woman, Jacob. And you can put ear plugs everywhere because they are inexpensive. It certainly is worth it in the long run.





Pappaw: Jacob, one of the tools that I use a lot on the farm is the chainsaw.

Jacob: Oh wow, Pappaw. I know that is really loud!

Pappaw: That's right, Jacob. At first, I was concerned about not hearing the sound and pitch of the chainsaw to make sure it is running OK. But you know, I can still determine when there's a difference in the sounds, and that's all I need to hear.

Jacob: Well, I know that even when I stand as far back as you make me, the chainsaw is very loud...Pappaw, do I still get to yell "TIMBER?"

Think Box

Did you know that exposure to excessively loud noise over a long time period is very damaging to your ears? What other common farm machines are loud enough to cause hearing loss?

Jacob: Pappaw, you don't need to wear ear plugs when we're fishing. Especially one that big!

Pappaw: No, Jacob. That's my new hearing aid that the audiologist recommended. It will help me hear you better. I may not understand everything the first time, but maybe you won't have to shout anymore.



Jacob: I think that's great, Pappaw! I never liked having to shout at you. I love you too much!

Pappaw: I love you too, Jacob. I always want to hear you say that to me!!

FACTS ABOUT HEARING LOSS

The Environmental Protection Agency estimates that 360,000 farm workers are exposed to average daily noise levels in excess of the 85 decibel level at which hearing conservation programs are required for industrial workers. Many farmers suffer hearing loss resulting from exposure to loud farm machinery. Most farmers do not perceive noise as a risk to their hearing. Usually the hearing loss occurs before the farmer is aware of any change. Hair cells in the inner ear become damaged or are destroyed as a result of exposure to excessively loud noise. As the number of hair cells decrease, so does your hearing. At present, there is no way to regenerate these hair cells. **THE DAMAGE IS PERMANENT!!**

The Kentucky Partnership has a hand-held machine that you may borrow to measure the noise levels of your farm machinery and equipment.

This information is brought to you by The Kentucky Partnership for Farm Family Health and Safety.

For information about joining this group please write to:

Regional Coordinator
Kentucky Partnership for Farm Family Health and Safety
PO Box 8266
1 Big Red Way
Bowling Green, KY 42101-3576

**The Kentucky Partnership:
Linking Farm Women, Their Families,
and Their Communities Together for
Health and Safety on the Farm**

Please wear hearing protection!!

Special Thanks to:

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Susan Jones, RN, MSN, Facilitator

Kevin C. Moore, University of Kentucky

THE KENTUCKY PARTNERSHIP FOR FARM FAMILY HEALTH AND SAFETY MEMBERSHIP FORM

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MAIL TO: Susan Jones, Regional Coordinator
The Kentucky Partnership for Farm Family Health & Safety
PO Box 8266 1 Big Red Way
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