

# Readers' Theater

## "Old MacDonald's Soil"

Characters: Adjust the number of characters for each part so each child in the class has a part

Old MacDonald

Farm Animals

Soil Scientists

Crops

Worms

**Old:** (*Surveying his crops*) Oh dear...My farm is just not doing well. The crops are not growing. What am I going to do?

**Crops:**

**Corn:** (*Falling over*) We just can't stand up in this sandy soil Old MacDonald! And we're dying of thirst. As soon as you give us water it runs right through the soil so fast that our roots can't even catch any of it to give us a drink! You need to do something fast!

**Hay:** (*Acting like they're swimming*) Well what about us Old MacDonald? We're drowning over here.... you planted us in the heavy clay soil. The water just puddles up so we can't get enough air because our roots are always soaking in water. Then when the water finally starts to dry up this soil is like cement. Would you like to have your feet stuck in cement?

**Vegetables:** (*Acting weak and sickly*) You think you guys got it rough? You should be us! Old MacDonald expects us to grow big healthy vegetables to feed his animals and his family...but we're not getting anything to eat ourselves! There are no nutrients in this soil. How's a vegetable supposed to grow up to be healthy if we don't get any nutrients? You need to go to farmer school Old MacDonald!

**Animals:**

**Horse:** If you think I'm gonna pull your wagon, or take you for a ride, you better get me some food. I'm too weak to even lift my hooves. I need food now!

**Cow:** Milk? You got milk? I don't got milk! I need some good food if I'm gonna make milk. Get busy old MacDonald!

**Pig:** Pigs are supposed to be fat Old MacDonald! I'm ashamed to show my face... and my skinny belly. A skinny pig...that's a disgrace old MacDonald. We want food!

**Chicken:** (*Scratching through dirt*) Corn? Where's the corn? I've scratched until my poor feet are worn clear down to the chicken bone! How's a chicken supposed to survive if there's not any corn to scratch and peck! No eggs for you Old MacDonald!

**Soil Scientists:** (*Driving by in bus*) What's going on at that farm? The animals and the crops are all yelling at the farmer. We better stop and help him out before he has a war on his hands!

- Scientist #1:** **What's** the problem here?
- Old:** I don't know what's wrong. I just can't get my crops to grow, so I don't have any food for my animals! They said I need to go to farmer school...but I don't know where a school like that is.
- Scientist #2:** Well I'd say you are in luck Old MacDonald. You don't need to go to a farmer school.... we can bring the school to you!
- Scientist #3:** *Yup...that's what we do!* We're Soil Scientists and we travel around helping farmers grow better crops.
- Scientist #4:** Let's take a look scientists, and see if we can figure out what the problem is.
- All scientists:** (*Look carefully at the crops.... say things like "I see" "oh dear, this is a problem, no wonder, etc.)*)
- #1:** Old MacDonald, your problem is your soil. You need to fix your soil before your crops can grow and you can feed your animals.
- Old:** Fix my soil? How on earth do you do that?
- #2:** Well you have a lot of problems on this farm so we better tackle them one at a time.
- Crops:** (*all together*) Me first.... we're the worst...take care of me now...I'm dying...you better get over here fast!
- Animals:** (*All pointing to or gathering around their favorite crop*) Yeah, come on scientists, take care of this one...I'm sure this is the most important...I'm starving, etc.
- #3:** Hold your horses! (*All the animals grab onto the horse*) Not like that...I mean just hold on a minute. We'll take care of everyone.... don't worry!
- #4:** Let's start with this corn. It's falling over and it looks like it really needs a drink!
- Corn:** Oh thank you thank you.... you're right. We can't last another minute!
- #1:** The problem, Old MacDonald, is you planted your corn in sandy soil. Sandy soil is too loose to hold up big plants like corn.
- #2:** And the water runs right through it. Your soil is all dried out before the corn gets any water!
- Old:** Well what can I do.... I had to plant it somewhere. Who knew corn was so picky?
- #3:** Well first thing old MacDonald is you need to mix some clay into this soil. That will make the soil stronger and it will slow down the water. Then your plants will get the water they need.
- #4:** Good soil is a mixture of the different types of soil.
- Hay:** Don't forget us!
- Horse:** Yeah, don't forget them...it's way past my lunchtime!
- #1:** Well the problem with this soil is it's straight clay. You need to mix some sand into the clay. That will make the soil lighter.
- #2:** Your plants will be able to get the air they need because they won't be waterlogged all the time.
- #3:** There's part of your solution Old MacDonald...just mix up these two soils. They'll both be better if you mix them together. Good soils are a combination of sand, silt, and clay.
- Vegetables:** Okay, but we are growing in average soil. It's really not too heavy or not too light...but we're starving. There's nothing to eat in this soil.

**#4:** You need to mix in some nutrients in all your soil Old MacDonald. Plants need to eat too.

**Old:** Plants need to eat? That's news to me. What did you say they eat?

**#1:** Nutrients

**Old:** Well what are they and where do you get them? Can I go to a drive-thru?

**#2:** It's the things in the soil that plants need to grow and make their own food.

**#3:** You have plenty of them right here on your farm.

**#4:** Yes, Some nice manure from your cows, or some dead leaves and plants will help add some nutrients in the soil for your plants.

**#1:** You just throw them on the soil and dig them in. they break down in the soil and the plants can get the nutrients they need. That's called organic matter and it's really important that there is plenty of organic matter in soil.

**Old:** Well that doesn't sound too hard...is there anything else I can do?

**#2:** You could go the Farm store and buy fertilizer.

**#3:** Yes, some companies make fertilizer that you can use in your soil. It contains the nutrients that plants need to grow healthy and strong.

**#4:** It's called fertilizer because it helps the soil become fertile. Fertile means it can grow really good crops and plants.

**Worms:** (*Lying on the floor*) Hey, don't forget about us!

**Old MacDonald:** Worms? I'm not going fishing. (*Worms shudder and look scared*) I need to fix my soil. What do worms have to do with that?

**Worms:** (*Pop up from floor*) We'll tell you that ourselves!

**Worms sing:** (*Tune: Mary Had a Little Lamb*)  
Worms do lots of good for soil, good for soil, good for soil  
We dig and loosen up the soil and that makes room for air  
Our castings fertilize the soil; make fertile soil, fertile soil  
We add nutrients to the soil and that helps plants to grow.

**Old:** Wow! You really do help the soil...I won't use you for bait anymore!

**Worms:** (*Look relieved and cheer*)

**Scientists:**

**#1:** So that's the bottom line Old MacDonald. You want good crops and food for your animals you better have good food for your plants...

**#2:** and that means good soil...

**#3:** Not too light and loose and dry...

**#4:** Not too heavy and packed and wet...

**All:** And plenty of nutrients.

**Old:** I think I've got it. I need to go mix my soils...a good combination of sand, clay and silt is what plants need.

**Crops:** And don't forget the nutrients!

**Animals:** Yep, add organic matter and fertilizer.

**Worms:** And remember we can help!

**Old:** Yippee! I think I'm gonna have the best soil in the state!

**Crops:** And the best crops!

**Animals:** And the best fed animals!

**All:** The best farm!

**All characters sing:** Old MacDonald had a farm S-O-I-L SOIL  
And on his farm was fertile soil S-O-I-L SOIL  
With great soil here and nutrients there  
Here great crops, there great crops  
The soil's growing great crops  
Old MacDonald had the best farm S-O-I-L SOIL