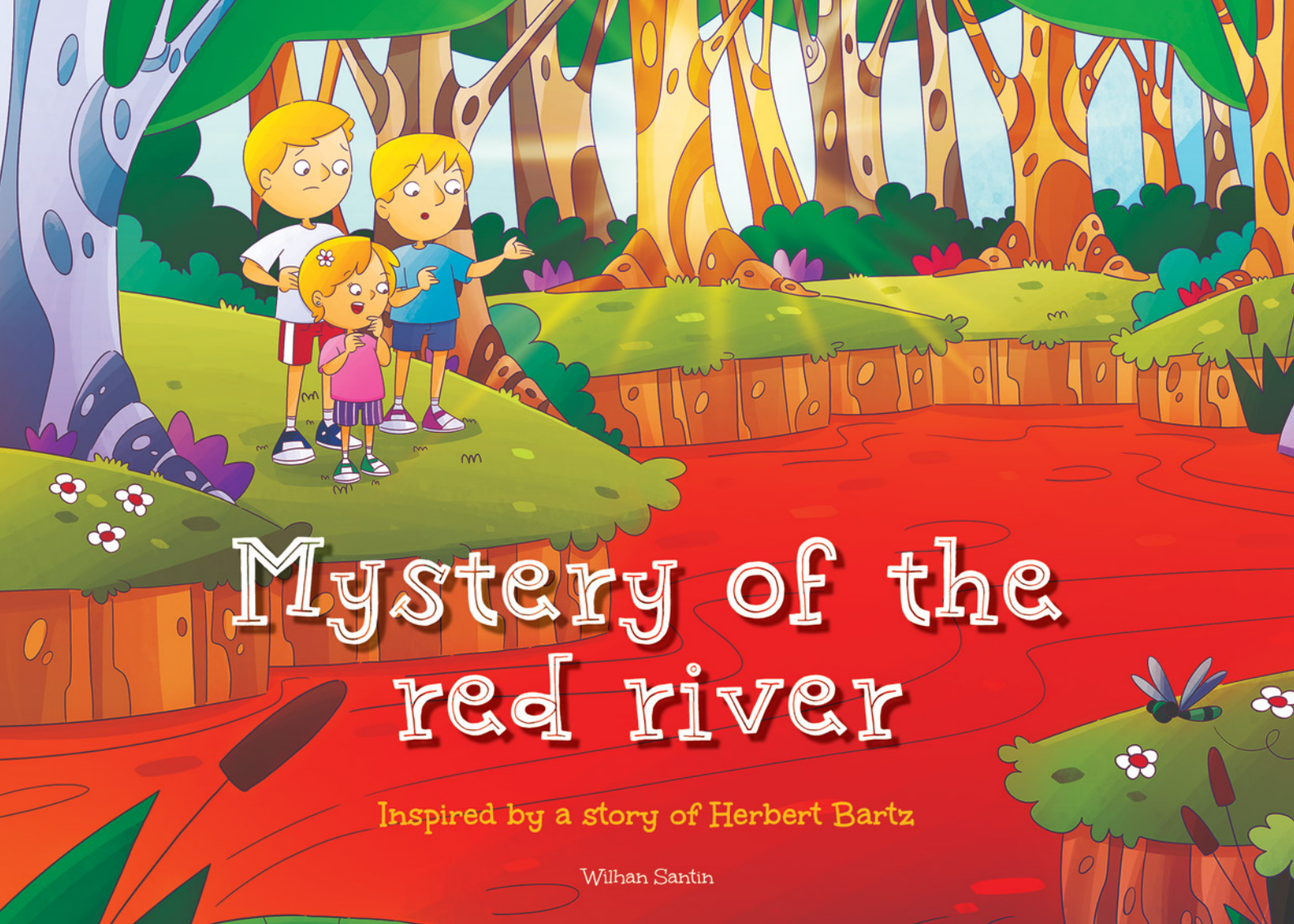

Mystery of the red river

Inspired by a story of Herbert Bartz

Wilhan Santin

Mystery of the red river

Inspired by a story of Herbert Bartz
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Dedication

We dedicate this book to the memory of Wieland Bartz

Introduction

This book is part of a Project that aims to contribute to the knowledge and preservation of the history of conservation agriculture in Brazil.

It all started with the biography "The possible Brazil", published in 2018, that tells the story of Herbert Bartz, pioneer of the No-Tillage System in Latin America.

"Mystery of the Red River" also rescues a piece of the history of the No-Tillage System, but has as a main objective, teach children of farmers and city-folk, how important it is to conserve soil, and how Brazilian farmers have helped with that.

We believe in education by example. And we know that adults usually react positively to learning by their children, learning also with them.

We hope that children like and that adults also appreciate and become inspired with this story. And deliver us fruits in the near future.

The Brazilian Federation of No-Tillage and Irrigation (FEBRAPDP), founded from the Earthworm Club of our pioneering No-Tillage farmers, has the mission to make available and link information and guidance on the No-Tillage System and Irrigation in Brazil. In order to promote best agricultural practices, FEBRAPDP organizes presentations, debates, conferences, congresses and other types of meetings so that farmers, entities and institutions can share experiences and new developments. It also promotes the integration of government departments and member institutions, as well as research and extension bodies, and represents the interests of farmers and partner institutions at regional, national and global levels.

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Johann doesn't usually ride his BMX bike slowly. At seven years old, he likes to pedal energetically down the dirt roads of Rhenania farm, where he lives with his parents, his brother and sister.

It's normal for him to be sweaty and tired.
But one day he arrived at home more tired than other times.
And frightened!

Wieland, one year older than his brother, quickly asked:
– What did you see out there? Why the frightened face?
Why did you come so quickly on your bike?
Did you see a puma? Did it run after you?

Marie, a little girl of five, very curious and smart, let go of the dolls she was playing with, to get closer to the boys and hear what Johann had to reply to so many questions.

The boy breathed deeply, recovering his breath lost by so much pedaling.

– It's the river. Our river.

It's red! It looks like it's been painted.

Wieland was surprised.

– You went all by yourself to the river, passing through the middle of the woods? Daddy told us that we are not to go there by ourselves. There're even alligators. You forgot, right?

Johann rebutted:

– I know that I did wrong, but I was pretending to be an adventurer who braves the forest. And I went on the trail on my bike. When I noticed, I was at the river's margin. That's when I saw the red water. And I came right back!

Marie said that she also wanted to see the red water. And to go to the river. Wieland also liked adventures and replied that they could go there. The father had ordered everyone not to go there alone. But he thought that if all three went, it wouldn't be a problem.

What the children called river, was actually a creek, a watercourse not as large as a river, but also not as small as a brook or a rivulet.

It passed by the far end of the farm, and had clean, almost transparent water. It was home to many fish and capibaras. It was narrow and surrounded by forest. The local people respected nature and did not cut the trees growing on its margin.

These are called riparian forests.

But now the river or creek, that further on served as catchment source for the water company to supply the large neighboring town, was red.

The three children got their bikes and pedaled through the crop fields, surrounded by wheat and oat crops, until they reached the forest, where a small trail led to the creek.

Johann was neither lying nor exaggerating. The waters were really red!

Marie presented her theory:

– They must have thrown paint, gouache paint,
the one that we use to play with.
A whole can of paint. How ugly!
Mommy told us that we should not throw anything into the river!

Wieland and Johann remained thinking.

Clearly the creek was not normal, even sad.

They needed to discover what had happened. It was a mystery.

And Wieland had an idea.

– Let's go talk with professor Cida!

It was a holiday. No school for the children and lots of work for the adults.
The wheat harvest was late because of all the rain, the previous days.

For Ms. Cida, a dedicated professional, it was time to grade papers and prepare classes.
She taught at the country school and lived nearby.

The three siblings pedaled hard, the boys going sometimes a bit slower to wait for their sister, she was only five years old, after all. But with an even bigger curiosity than the boys. And strong legs too. They arrived all sweaty at the teacher's house.

– Children, what's going on?
What are you doing here, if today isn't a school day?

Before the three replied, she filled up some cups with water and
asked them to sit down in the shade of a mango tree.

It was Johann who told her how red the river was.

Marie presented her opinion of the large paint can.

– Unfortunately, the redness is really caused by humans, my dear, but it was not paint that they threw there.
The red comes from the earth, our soil, the fertile soil where crops are grown.
The rain has taken the soil to the creek.

– explained the wise teacher.

The children still had their doubts.

– But if the red color comes from the earth, and it was the rain that took it, why do you say that it's man's fault?

– wanted to know Johann.

– I think it's time for you to know your father's story.
Talk to him about the red river.
He needs to know about it.
And he will give you many answers.

After the conversation with the teacher, the three returned pedaling slowly.
They didn't need to go fast anymore.

They knew that the father was only going to come home at night. It was always that way at harvest time, even more when the harvest was late.

But what all did he have to tell them?
The father of the three children was called Herbert Bartz. He was a farmer.
He loved to produce food and was always thinking of
how to produce more and in better ways.

That day, Herbert arrived at home very tired, late at night.
He found his three children wide awake, waiting for their dad to have a serious talk.

He asked the children to tell him right away what they wanted.
What could be so urgent?

Wieland began and told him that the river was red, and that they
had gone there and after visited the teacher.

– What you're telling me is really important. So important
that we better talk about it with time and patience.
Now I need to take a batch and get some sleep. You all sleep as well.
Tomorrow I will take you to school and we will talk along the way.

The three of them went to sleep thinking of what all their dad had to tell them.

Next morning, they woke up earlier than usual. Marie still didn't go to school, but she woke up also. She wanted to go with them. She needed to find out the mystery of the red waters.

At breakfast, Herbert started to tell the story.

– When I started planting, a long time ago, rivers were redder than normal in our region.
At that time, we tilled the land, turned it over, left it clean for planting.
We called it soil preparation.
But when the soil was tilled like that, the rain would come and wash everything away to the river.

Wieland interrupted.

– So that's what those plows in the shed were used for!

– Yes, that's right!

– And why did you stop using those plows?

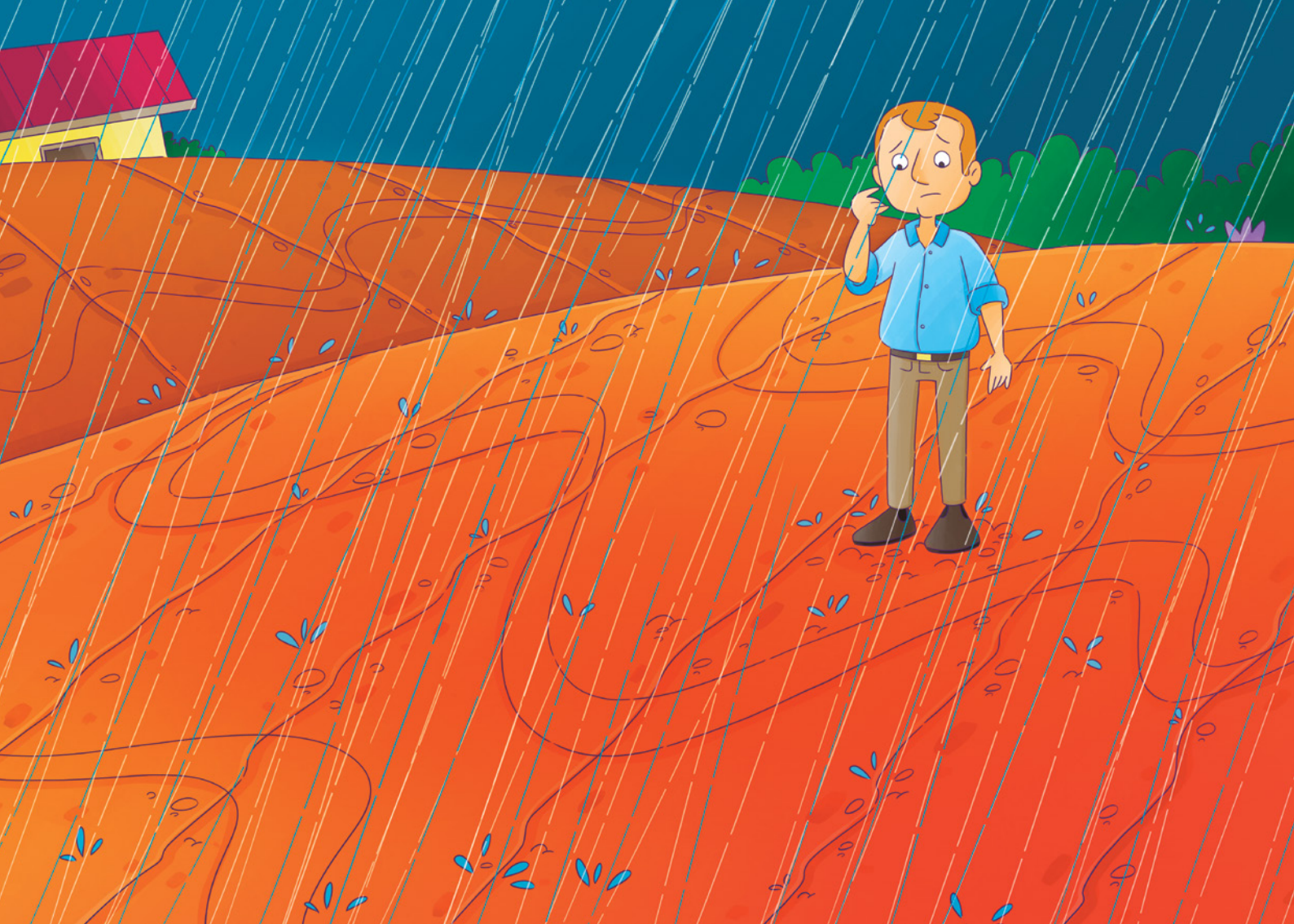
– asked Johann.

Herbert looked at the clock. It was time for them to go to school.

He said that in the car he would continue the story.

The children got into the jeep, and the father started it up and continued:

– I couldn't stand seeing the soil being washed away.
Soil is a farmer's treasure.
One stormy night, I went to the middle of the field and saw the water taking away the soil, seeds, fertilizers...
It happened with me and with all those who planted in Brazil.
Erosion and ditches were normal.
The land was becoming poorer, without life.
What a great sadness!



– Ok daddy! But what did you do?

– asked Marie.

Herbert drove the jeep slower than usual. He wanted to tell everything to the kids.

– I had already been talking with some researchers. One of them, called Rolf, told me about the possibility of planting without soil preparation. I travelled to learn more about this.

The three little ones listened attentively.

– I visited Germany, England. I saw some possible solutions. But none of them was good for our tropical climate. In the United States, a researcher called Shirley and a farmer, Harry, showed me what they called No-Tillage.

The conversation was enjoyable. But the jeep arrived at school.

And it was time for classes to begin.

The boys stayed.

Marie returned with her father, anxious to know more.

– After that, I bought a planter to plant without tilling the soil, on top of the previous year's straw residues. Everyone started to say I was crazy, daughter.

– Daddy, there's still some people who think you're crazy

– replied the girl, with the sincerity of a five year old child.

– Yes, but now it's only some. Before it was everyone!

– laughed Herbert.

After, he explained that with time, people started seeing that was good. The straw protected the soil, not letting it be washed away by the rain. And even better, it helped the soil absorb water, keeping it moist. And everything became organic matter, bringing life back to the soil, making it more fertile and healthy.

So they ended up calling it No-Tillage System.

– Some Japanese came, from a county called Mauá da Serra, they saw it and liked it, and started doing the same thing. Later, some farmers came from a region called "Campos Gerais" and also started to plant in the straw. They even founded a club, the Earthworm Club!

– Earthworms, Daddy. Why earthworms? Weren't you talking about soil?

– inquired Marie

– Good soil has earthworms, girl!
Now let me go back to the harvest! I'm late!

– replied her father.

– What about the red river?
If everyone now uses No-Tillage, what happened?

– replied the girl.

Herbert left in a hurry, saying that at night they would talk more.

Marie spent the rest of the morning with worms in her head! At lunch time, she went with her mother to fetch her brothers at school. She told them about her talk with dad.

The three spent the afternoon digging, looking for and finding many worms!
Even in the middle of wheat and oat fields where the buffalo grazed.

When Herbert arrived, already at night, they had dozens in a bucket to show their father.

Look.
When we plowed the soil, there were no worms.
Now there are. They like soil and organic matter, that are leaves and plant roots in decomposition, together with little bugs.
And, living in good soil, they make it even better! A real beauty!

– said the man with enthusiasm.

– Ok daddy!
But now tell us why the river is red

– urged Johann.

Herbert sighed. And stayed quiet for a few seconds.

He always did that when he got nervous.

– It's our new neighbor. He arrived with lots of money, bought three properties at once and turned them all into one big one. And he began planting any which way, without leaving straw on the surface and using the plow... It rained and his soil went to the river!

Wieland became nervous.

– And nobody's going to do anything about it?

Herbert explained:

– We got three friends together, all of us good farmers, and went there, very educatedly. He replied that the land was his and he could do as he pleased. And that he had nothing to learn from country hillbillies like us. Now I'm going to take a bath.

Luiza, the kid's mother, told them to go to bed. It was already late.

The mystery was solved. They knew why the river's waters were red.
It was soil. But Wieland said he had a plan for the following afternoon,
when the boys got back from school.

Marie spent the morning anxiously waiting for her brothers.
She wanted to know her oldest brother's plan.
When they arrived, Wieland explained.

– The farmer's grandson was called Marcos and studied at the same school. He lived with his grandpa, whose name was Pedro. Marcos said that Pedro was not a bad person. It's just that he liked doing things his way and didn't listen to anybody...

– Ok, I saw you talking with Marcos. But what's the plan

– wanted to know Johann.

– Let's go convince Mr. Pedro!

– shouted the oldest of the three.

Marie wondered:

– But daddy and Marcos already said that he doesn't listen to anybody!

But they didn't know that Wieland had more information, told by Marcos.

Mr. Pedro was son and grandson of farmers.

His family worked on the farm for many years.

But he had abandoned agriculture as a youngster

and gone to the city, to work in an office.

When his dad died, he received a large farm as inheritance.

He sold it and bought the land close to the Bartz family, deciding to be a farmer again.

But he still thought that he could the same things as his grandfather did.

– So, we're going over there, telling him daddy's story and he will also use No-Tillage!

– concluded the oldest of the three.

Marie added:

– What if we took an earthworm?

– You're really with worms in your head, girl!

– joked Johann

From the bucket of worms that the three had caught, all were returned to the soil.

Except one, that Marie put into a pot with lots of soil and organic matter.

She even gave a name to the little creature.

Wormy Mimi, a pet earthworm.

– Mimi is coming with us

– she said.

With their bikes, the siblings went through the fields.

The wheat had already been harvested and now the planters were sowing corn over the wheat residues, with the soil protected from erosion and the hot sun.

Driving the tractor that pulled the planter, Herbert from far away, saw the children.

He knew they were up to something. But he trusted them.

The Bartz brothers were well received at Mr. Pedro's farm.

– If you are Marcos' friends, you're mine too

– said the man.

And he sent off for some acerola juice for the three.

Wieland, very seriously, posing as an adult, started the conversation.

– Mr. Pedro, please don't get mad at me.
But the way you're planting is not right.

– Boy, my grandfather did it this way.
My father did it this way.
And I decided to it this way.
With the plow, the weeds go away,
the soil stays clean, ready for the seed.
It's wonderful

– replied Marcus' grandpa.

Johann joined the conversation:

– But your soil is washed away too.
Did you know that our river is red because of that?

Right then, Haruo showed up, a wise farm worker with years of experience, whom Mr. Pedro had hired the previous day to manage the farm. He excused himself and joined the conversation.

– You know boss, I was thinking of a way to tell you many things. But hearing your conversation with the children, I decided to join in. Plowing the soil, you need to use the tractor much more than with the No-Tillage System. With that, you spend a fortune in diesel and pollute the planet, besides contributing to sedimentation, which is when the river gets full of soil. And you ruin the soil, that is going to become impoverished, dead-like and unproductive in a few years.

Mr. Pedro listened carefully. He scratched his head and replied:

– Maybe someday I will change. But not now.

That's when Marie decided to introduce Mimi, that was properly accommodated in a can with soil, where it peacefully made the bike trip from one property to the other.

– Mr. Pedro, this is Wormy Mimi, our pet worm.
We got her in the middle of our dad's plantations.
Because he said that good soil has worms.
Have you found worms in your fields?

Mr. Pedro's eyes filled with tears. When he was a little boy, he also had pet worms. Mimi made him think. Truthfully, he had not found worms in his fields since he started to plant without leaving straw on the surface.

– Children, you're right!
Soil without worms cannot be any good.
You just put worms in my head too
– he said laughing.

And added:

– Haruo, provide all that's needed.
We will do it the right way.
We will use the No-Tillage System!
Please tell your father that I
apologize for calling him a hillbilly.

It was the end of the afternoon when the three returned home, pedaling happily.

Mr. Pedro was now a friend.

And the creek would once again be clear.

Wormy Mimi, in her can and in Marie's bike basket, even seemed to smile.

After all, many other worms would now have more soil to live in and fertilize.

THE END

And the story continued:

Johann and Marie grew up...

Johann became a farmer and agricultural engineer, continuing his father's work, taking care of and protecting our soils using the No-Tillage System and producing quality food.

Marie become a biologist, specialized in earthworms, with the main job of identifying species and describing and naming them when they are new to science. In her research, Wormy Mimi, was identified as a new specie, the first native specie to be found in croplands in Brazil. It was named ***Fimoscolex bartzi***, in honor of daddy Herbert's accomplishments with the No-Tillage System.

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O **projeto Encontro Literário** surgiu como uma forma de incentivar a leitura por crianças de escolas públicas em regiões onde a Integrada está presente, por meio de palestras sobre a obra e a vida de Monteiro Lobato, feitas pelo estudioso do autor, o engenheiro agrônomo Léo Pires.

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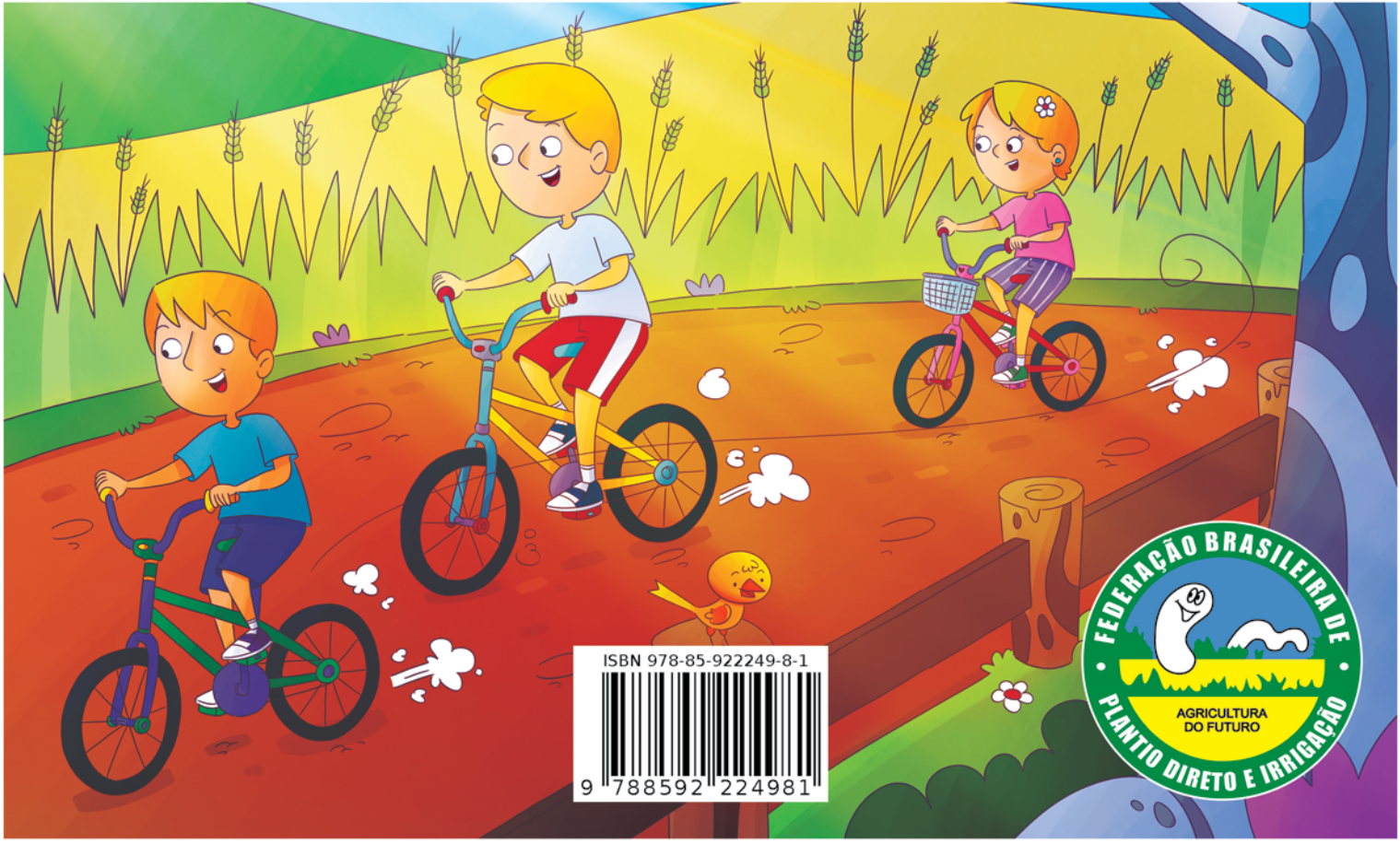

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