



## DNA Rap

### Introduction

This comic “rap” introduces the challenges that farmers face for food production. A magic researcher pops in to point out that solutions can be found by studying the traits and DNA of plants.

Have students read the narrator, farmer, and scientist parts.

Concepts for biotechnology:

1. Farmers face significant challenges for food production.
2. Applications using DNA research can increase food production.

### Hawaii Standards

1. SC.BS.2.2 Explain how scientific advancements and emerging technologies have influenced society.
2. SC.ENV.5.3 Explain how population growth and natural resource consumption affect global sustainability.

# DNA Rap

## Slide 1

What if one day  
You woke up to find  
There was no more food  
Nothing left to grind?

## Slide 2

The TV proclaimed  
The farmers had vanished!  
They'd left their fields  
We would all be famished!

## Slide 3

Why should I stay?!  
The Farmer said.  
I have too many problems  
And I'd rather stay in bed!

## Slide 4

To begin with, I have Papaya  
That are always getting sick  
From a virus that makes them spotty  
So those I cannot pick!

## Slide 5

Then there are the insects  
That can eat an entire crop  
And nothing I ever do  
Seems to make them stop!

## Slide 6

The weather also  
Gives me stress  
The wind rips through my fields  
And makes a mess!

## Slide 7

And don't get me started  
Talking about weeds!  
They strangle my plants  
And smother my seeds.

## Slide 8

So, I'm outta here  
I just can't stay  
Unless somehow  
There is another way...

## Slide 9

"But, there's always a way!"  
Said a big booming voice  
"Science can help,  
You can make a choice!"

## Slide 10

Who are you?!?!  
The Farmer exclaimed

Slide 11

And then he saw a flash

Before the mystery man proclaimed :

Slide 12

I'm the Rappin Researcher

And I'm here to say...

Slide 13

That answers to your problems

Are found in DNA!

Slide 14

Every living thing

begins as one cell.

That means not only humans,

But plants as well.

Slide 15

If you look inside the cell

At the Nucleus

You'll find the DNA

That's important to us.

Slide 16

DNA is what makes

All the different TRAITS.

Its why we have sweet or sour apples

And red or green grapes.

Slide 17

All of you farmers

Took off on vacation

Cause' it can get hard

To feed a whole nation.

Slide 18

What you folks need

Are crops with better TRAITS

That will let your crops grow

Without putting on the brakes!

Slide 19

Hey, I think I got it!

Its DNA that is the key

To finding better crops

That will make farming easier for me!

So, move on over

And let me grab the mic -

Slide 20

What we're gonna need

Is the corn bugs don't like!

Slide 21

Another Trait

That a crop needs

Is to keep growing strong

While the farmers fight the weeds.

Slide 22

And How about Papaya

That won't get sick.

Choosing them

Has got to do the trick!

Slide 23

There's one more thing

That we could use

How about some plants

That won't take abuse

From wind or floods

Or dry drought weather

Slide 24

Hey!

I think its time for us farmers and  
scientists

To all work together!