

## Athletics and Agriculture?

Baseball, football, basketball, tennis, golf...many of us enjoy watching or participating in some form of sport or athletic activity. But what do sports and agriculture have in common? A lot more than you would think! In any sport, there are things that you will need to compete. Most sports require some sort of equipment. Any type of activity also requires a place to do the activity. And of course, nutrition is a key factor for success in any athletic activity.



Image from [The Arena podcast tackles the topic of multi-sport benefits - Active For Life](#)

### Equipment

So, you've decided you want to play baseball this spring. What do you need? A ball of course, a glove, a bat some cleats. A baseball is made by surrounding a cork with rubber, wool and cotton yarn, and covered with leather. The glove and cleats are also leather, and the bat is wood, typically from maple trees grown specifically for bats. Where do all of these come from? Plants and animals, products of agriculture!

Did you ever hear of a football referred to as a pigskin? Pigskins were never used as balls, but pig bladders were! The bladders were never consistent in size and shape because sometimes they would be blown up with air and sometimes, they would be filled with straw. Footballs used by the NFL today are made of leather from animal hides that has been specially treated to very specific standards for size and shape and are filled with air. It's important to those working in agriculture that as much of the animal as possible is used in making food and other products with very little going to waste.

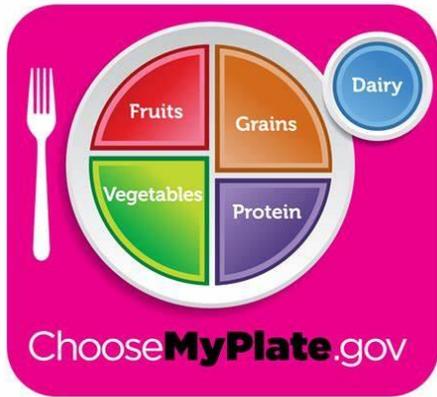
### Play Spaces

The space where you play a game is also starts on a farm! If you've ever run full speed in a field with rocks, weeds and holes and managed to come out without any injuries, consider yourself lucky! Fields with good **turf management** are often the best to play on and believe it or not, there are jobs in agriculture that focus specifically on this.

Turf management is a lot more than clearing a space and cutting the grass. These experts study the type of climate, soil, which grass is best suited for the type of play, drainage, and durability. Even if it is basketball you are playing, the courts are made from hardwoods that are all grown and cut to specification, again through agriculture.

### Nutrition

Now that you are ready to play, where will you get the energy you need? Agriculture is the answer once again! For your body to perform at its best, it is important to provide it with the best fuel possible. Depending on the level of activity, you will need to adjust the levels of proteins, carbohydrates, fats, and fluids that you eat everyday.



Image

This image from MyPlate shows what your plate should look like at each meal. We'll go into some of the specifics that will help you fuel up for your next game.

**Proteins** are the building blocks that make up your cells. You need enough protein to build up muscle mass and to restore damaged cells. Proteins come from lean meats, eggs, fish, milk, nuts, beans, or soybeans.

**Carbohydrates** are the body's main source of energy. If you don't eat enough carbohydrates, you may run out of energy before you cross the finish line. It is important to eat **complex**, rather than **refined** carbohydrates. Some examples of complex carbohydrates would be whole grain bread or pasta, cereals, fresh fruits, and vegetables. Refined carbohydrates give you a burst of energy, but it usually goes away quickly. Candy, soda, cookies, and chips are examples of refined carbohydrates.

**Fats** are important because they protect our organs and help store and process vitamins and minerals.

**Fluids** are needed to keep everything moving in your body. Especially when you are active, your body loses fluids through sweating. The amount you lose can change drastically, depending on the type of activity, the weather, your diet, and other health conditions. You need to make sure to drink enough fluid before, during and after exercise to remain hydrated. Even a small amount of **dehydration** can affect your performance, and your health. Check out this guide below for tips!

## Sports Safety 101: Hydration

**1.**

**Drink water before, during and after play.**

**2.**

**THIRST  
DIZZINESS  
NAUSEA  
FATIGUE**

**Know the signs and symptoms of dehydration.**

**3.**

**Hydration is essential for staying in the game.**

Image from safekids.org

Name \_\_\_\_\_

Date \_\_\_\_\_

## **Athletics and Agriculture?**

Directions: Read each question and fill in the best answer.



[www.maefonline.com](http://www.maefonline.com)



1. What is a baseball made from?

- A. Pig bladders
- B. Plastics and straw
- C. Pig skin
- D. Leather, wool, cotton, rubber, and cork

2. Where would a Turf Manager most likely **NOT** work?

- A. Football stadium
- B. Restaurant
- C. Golf course
- D. Baseball park

3. What is the main purpose of protein?

- A. Build and repair muscles
- B. Prevent dehydration
- C. Provide energy
- D. Store fats

4. Which would be an example of a refined carbohydrate?

- A. Whole wheat bread
- B. Oatmeal
- C. Doughnut
- D. Banana

Name \_\_\_\_\_

Date \_\_\_\_\_

5. How much protein should your meal contain, according to the MyPlate graphic?

- A. About 50%
- B. About 10%
- C. About 20%
- D. About 70%

6. Which is **NOT** a sign of dehydration?

- A. Thirst
- B. Dizziness
- C. Nausea
- D. Sweating

**Extended Response:** Use details from your own experience and information from the article in your response.

Develop a plan for an athletic event that you would like to participate in. Make sure to include a diet and exercise routine, and how agriculture is represented in your plan

## Athletics and Agriculture Facts

- The hide from one cow makes enough leather for 12 baseball gloves, 144 baseballs, or 20 footballs.
- Golf balls were originally made from dried cow eyes!
- Until 1949, when a player was bitten by a snake, Tennis at Wimbledon was played on 2-inch-tall grass.
- **"Buy me some peanuts and Cracker Jack"** (or a hot dog, or nachos, or ice cream, or lemonade, or cotton candy) None of these snacks would be **"At the Old Ball Game"** without agriculture!

# TRY THIS AT HOME! SCIENCE EXPERIMENT

(ASK AN ADULT FIRST!)



## How does the type of surface affect the height of a bouncing ball?

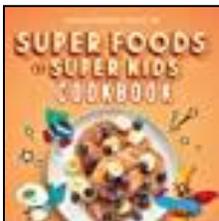
**Materials:** At least one type of ball, a tape measure or meter stick, different surfaces to test such as bare soil, asphalt, grass, or concrete, and paper and pencil to record your data.

**Think like a Turf Manager!** What type of surface do you think will provide the biggest bounce? Make sure to set up your experiment so that everything is the same, except for what you are testing. Decide on a surface to test, and a height from which to drop the ball. Drop the ball from the same height three different times. Measure and record the height of the first bounce for each time. Repeat with the next surface, keeping everything else the same. Try it with at least **three** different surfaces.

What does your data tell you? Do you think a different type of ball would have the same results? Try it!



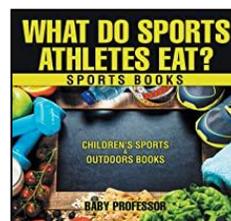
## CHECK OUT THESE BOOKS:



### SUPER FOODS FOR SUPER KIDS COOKBOOK

BY NOELLE MARTIN

This unique cookbook explains how to safely use kitchen equipment to cook and eat healthy. It includes descriptions of which nutrients foods provide, so you can see all of the great stuff that's making you healthy and strong!



### WHAT DO SPORTS ALTHETES EAT?

BY BABY PROFESSOR

Do you want to build muscle? Increase endurance? This book explains how to eat for the specific goals you want to achieve for your sport.