BIOPLASTICS 101:

MEET PLA, PHA, PBS & PEF

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WHAT ARE BIOPLASTICS?

BIOPLASTICS ARE MATERIALS THAT LOOK AND BEHAVE LIKE PLASTIC, BUT THEY COME FROM RENEWABLE SOURCES LIKE CORN, SUGARCANE, OR EVEN FOOD WASTE.

SOME OF THEM CAN BREAK DOWN IN COMPOSTING SYSTEMS. OTHERS CAN BE RECYCLED LIKE REGULAR PLASTICS. ALL OF THEM ARE DESIGNED TO REDUCE POLLUTION AND OFFER A MORE SUSTAINABLE ALTERNATIVE TO FOSSIL-BASED PLASTIC.

PLA: THE EVERYDAY BIOPLASTIC

PLA, OR POLYLACTIC ACID, IS ONE OF THE MOST COMMON BIOPLASTICS TODAY. IT IS MADE FROM THE SUGARS FOUND IN CORN OR SUGARCANE.

YOU'LL FIND IT IN ITEMS LIKE SALAD CONTAINERS, DISPOSABLE COFFEE CUPS, AND EVEN 3D PRINTER FILAMENTS.

PLA IS COMPOSTABLE, BUT ONLY IN SPECIAL INDUSTRIAL COMPOSTING FACILITIES—NOT AT HOME.

PHA: PLASTIC MADE BY MICROBES

PHA IS MADE IN A FASCINATING WAY—BY MICROBES THAT NATURALLY PRODUCE IT WHEN THEY DIGEST PLANT OILS OR SUGARS.

PRODUCTS MADE FROM PHA CAN BREAK DOWN IN MARINE ENVIRONMENTS, GARDEN COMPOST, OR SOIL, WHICH MAKES IT ONE OF THE MOST ECO-FRIENDLY OPTIONS.

IT'S USED IN THINGS LIKE DRINKING STRAWS, SNACK PACKAGING, AND EVEN MEDICAL STITCHES THAT DISSOLVE IN THE BODY.

PBS: HEAT-RESISTANT AND STRONG

PBS STANDS FOR POLYBUTYLENE SUCCINATE. IT IS A FLEXIBLE AND DURABLE BIOPLASTIC THAT HOLDS UP WELL UNDER HEAT.

THAT MAKES IT PERFECT FOR PRODUCTS LIKE MICROWAVE-SAFE FOOD TRAYS, TAKEAWAY BOXES, AND REUSABLE SHOPPING BAGS.

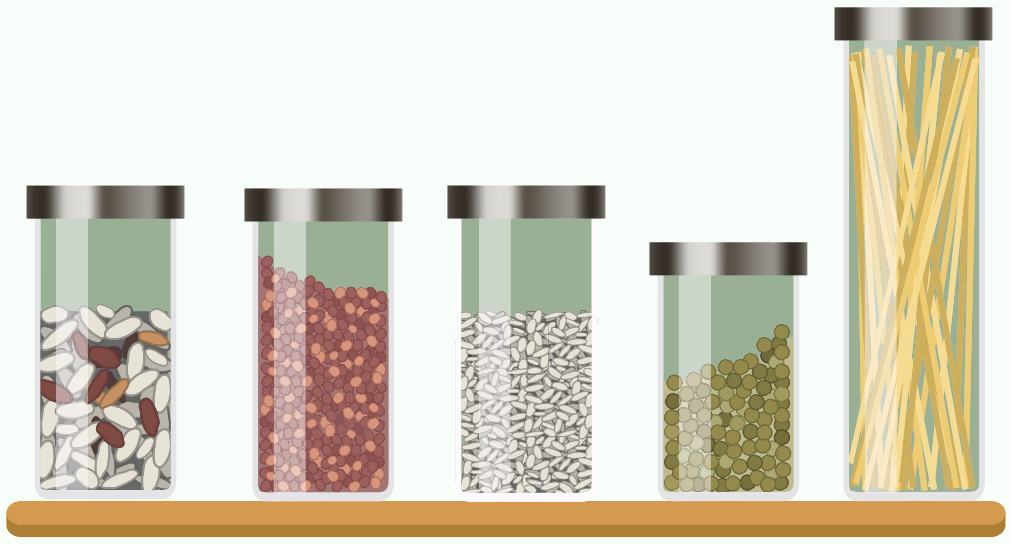
PBS CAN BE COMPOSTED IN SOME SYSTEMS AND IS OFTEN COMBINED WITH OTHER MATERIALS TO ENHANCE ITS STRENGTH.

PEF: THE BOTTLE OF THE FUTURE

PEF IS A NEWER BIOPLASTIC MADE FROM PLANT SUGARS. IT LOOKS LIKE PET (THE PLASTIC USED IN SOFT DRINK BOTTLES), BUT IT PERFORMS EVEN BETTER.

PEF CREATES A STRONG BARRIER TO KEEP OXYGEN AND CARBON DIOXIDE OUT, WHICH HELPS DRINKS AND FOODS STAY FRESHER LONGER.

IT IS FULLY RECYCLABLE AND IS BEING USED IN JUICE BOTTLES, REFILLABLE JARS, AND FOOD CONTAINERS THAT NEED LONG SHELF LIFE.



DO ALL BIOPLASTICS BREAK DOWN THE SAME WAY?

NOT ALL BIOPLASTICS ARE COMPOSTABLE. SOME NEED INDUSTRIAL FACILITIES, OTHERS CAN BREAK DOWN AT HOME, AND A FEW ARE MEANT TO BE RECYCLED INSTEAD.

UNDERSTANDING THE DISPOSAL METHOD MATTERS. WHEN IN DOUBT, LOOK FOR CLEAR LABELS AND FOLLOW LOCAL RECYCLING OR COMPOSTING GUIDELINES.

WHY THIS MATTERS

BIOPLASTICS LIKE PLA, PHA, PBS, AND PEF ARE ALREADY BEING USED IN EVERYDAY ITEMS—MAKING IT EASIER FOR CONSUMERS AND BUSINESSES TO SHIFT TO MORE SUSTAINABLE CHOICES.

KNOWING WHAT THEY ARE AND HOW THEY WORK HELPS YOU REDUCE WASTE AND SUPPORT THE CIRCULAR ECONOMY.

THIS IS JUST THE BEGINNING OF A SMARTER WAY TO USE MATERIALS.

WANT TO KNOW MORE?

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