FEEDSTOCK! IT'S BASICALLY FUNGI FOOD. WE COULD EVEN USE WOOD CHIPS OR SOMETHING. AFTER WE MIX THE MYCELIUM AND FEEDSTOCK WE PACK IT IN A GROWTH TUB. THE MUSHROOM “MAGIC” HAPPENS UNDER THE RIGHT CONDITIONS.

EXACTLY, BUT NOT JUST TEMPERATURE... ALSO HUMIDITY AND ATMOSPHERE.

KINDA LIKE COOKING!

BECAUSE FUNGI BREATHE, KINDA LIKE US.

THAT FUNGI TAKE IN OXYGEN AND RELEASE CARBON DIOXIDE. CARBON DIOXIDE LEVELS HELP REGULATE THEIR GROWTH.

SO THIS IS A KIND OF FERMENTATION?

YEAH, BUT FERMENTATION IS USUALLY WITHOUT OXYGEN, LIKE WHEN PEOPLE MAKE ALCOHOL.
OR LIKE WHEN WE MADE KOMBUCHA.

YUP! BUT IN THIS CASE THE MYCELUM GROWS IN AND AROUND THE SOLID FEEDSTOCK. THE FUNGUS BREAKS DOWN AND CONVERTS THE FEEDSTOCK INTO MORE MYCELUM.

AND THE FUNGUS DOESN'T HAVE A MOUTH OR STOMACH SO IT USES DIGESTIVE ENZYMES THAT IT SECRETES OUT ITS CELLS.

YEAH! HECKA INTRIGUING HUH??

ENZYMES ARE SPECIAL PROTEINS THAT HELP CHEMICAL REACTIONS TAKE PLACE, SUCH AS BREAKING DOWN CELLULOSE INTO SIMPLER SUGAR MOLECULES THAT ORGANISMS CAN USE TO POWER THEMSELVES.
AFTER THE FUNGUS GROWS, WE THEN HARVEST THE EXTRA SKIN-LIKE TOP LAYER OF MYCELIIUM AS A TEXTILE WE CAN CUT AND SHAPE INTO OUR JACKETS.

OK, WE FEED WOOD CHIPS TO MUSHROOMS AND WAIT, THEN WE GET A JACKET??

RIGHT?? WE SHOULD PROBABLY DO MORE HOMEWORK. MAYBE EVEN TAKE A STROLL THROUGH THAT FOREST MY NANA SHOWED US A WHILE AGO.

Chapter 1: End