

INVENTORS

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BIOPACK

Patent No.: PI 2013000062

PRODUCT DESCRIPTION

The purpose of the BIOPACK invention is to replace the existing type of food packaging that come from plastics. Due to the continuously rise on demand of plastic for food packaging for many application, BIOPACK is interesting to be highlighted as a potential product to replace conventional product which can take years to degrade. By using this new invention with special formulation, the BIOPACK is naturally biodegradable which can produce a greener and safer for any type of food packaging at lower cost.

PROBLEMS STATEMENT

- Many plastic that come from food industries waste end up in landfills which it turns are burned or piled up. Uncontrolled open burning can result in air pollution while pilling up need to face challenges for animals, disease, and water contamination.
- In conventional most of the additive being used are metallic salt, which is harmful to human body in excessive quantity. The usage metal oxide as pro-oxidant (such as cobalt stearate) has lead toxicity that can cause damage to major constituent of biological system.
- Many plastic that come from food industries usually contain Bhisponal A (BPA) that cause to health issue such as hipetetic, cancer and depression. This innovation is conversion of the filler that are usually chemical substance to the filler that come from nature which not contain BPA.

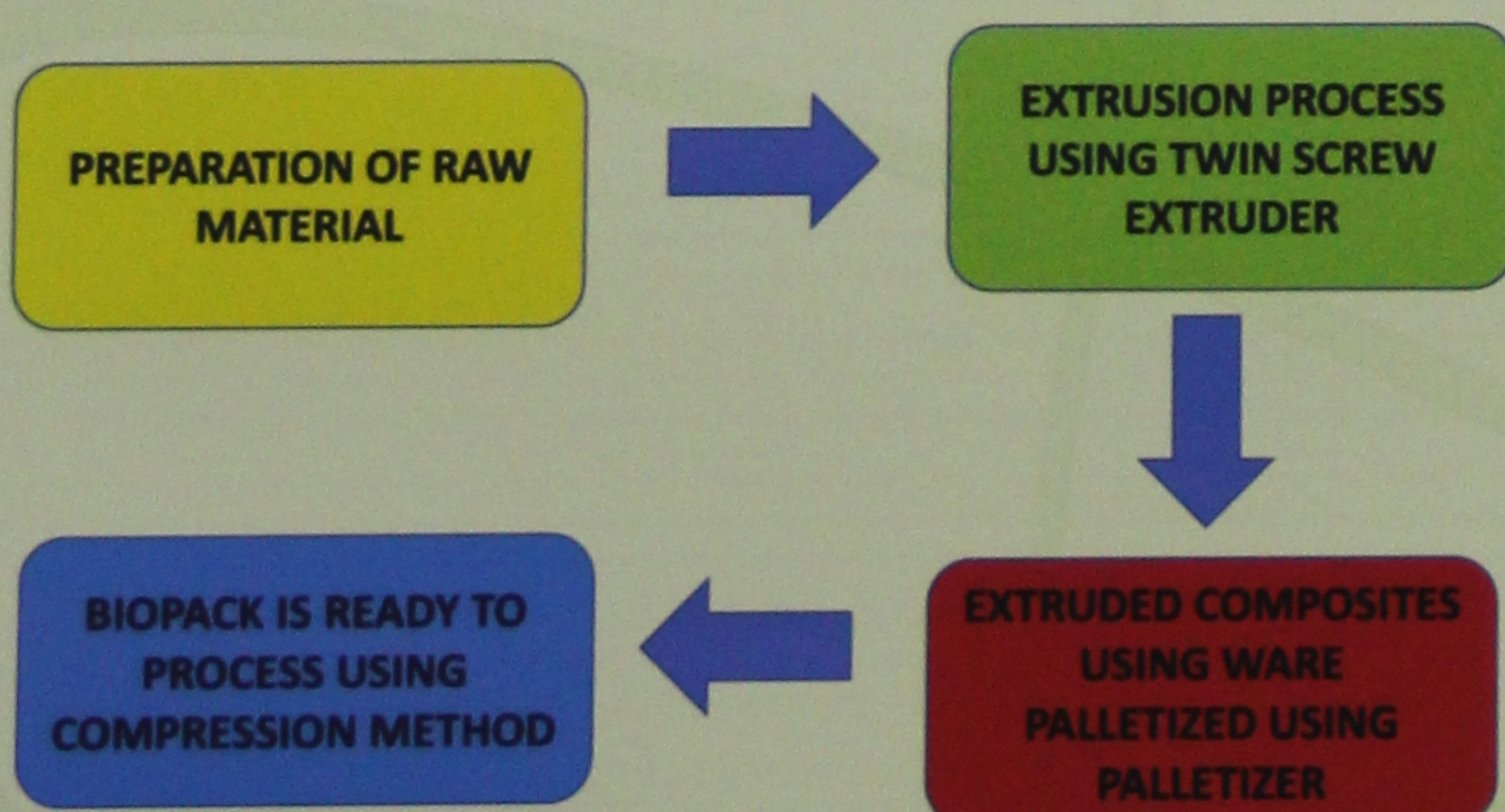
PRODUCT ADVANTAGES

- EASY TO DECOMPOSED.
- SAVE ECOSYSTEM
- LESS LABOUR SKILL
- ABLE TO WITHSTAND PROCESSING TEMPERATURE UP TO 200 C DEGREE CELCIUS
- BIODEGRADABLE MATERIAL PROVIDE MARKETING ADVANTAGE

NOVELTIES

- BIOPACK IS AN OXO-BIODEGRADABLE PRODUCT OF FOOD PACKAGING FULLY DEGRADABLE ABOVE AND BELOW THE SOIL
- LOW COST
- IT COMES FROM INVASIVE WEED AND ABUNDANT THAT HAS NO SPECIALITIES IN OUR COMMUNITY.
- CAN BE USED IN INDUSTRIAL AND CONSUMER PACKAGING INCLUDING FOOD PACKAGING (PE, BOPP, CPP and PET)

PROCESS FLOW

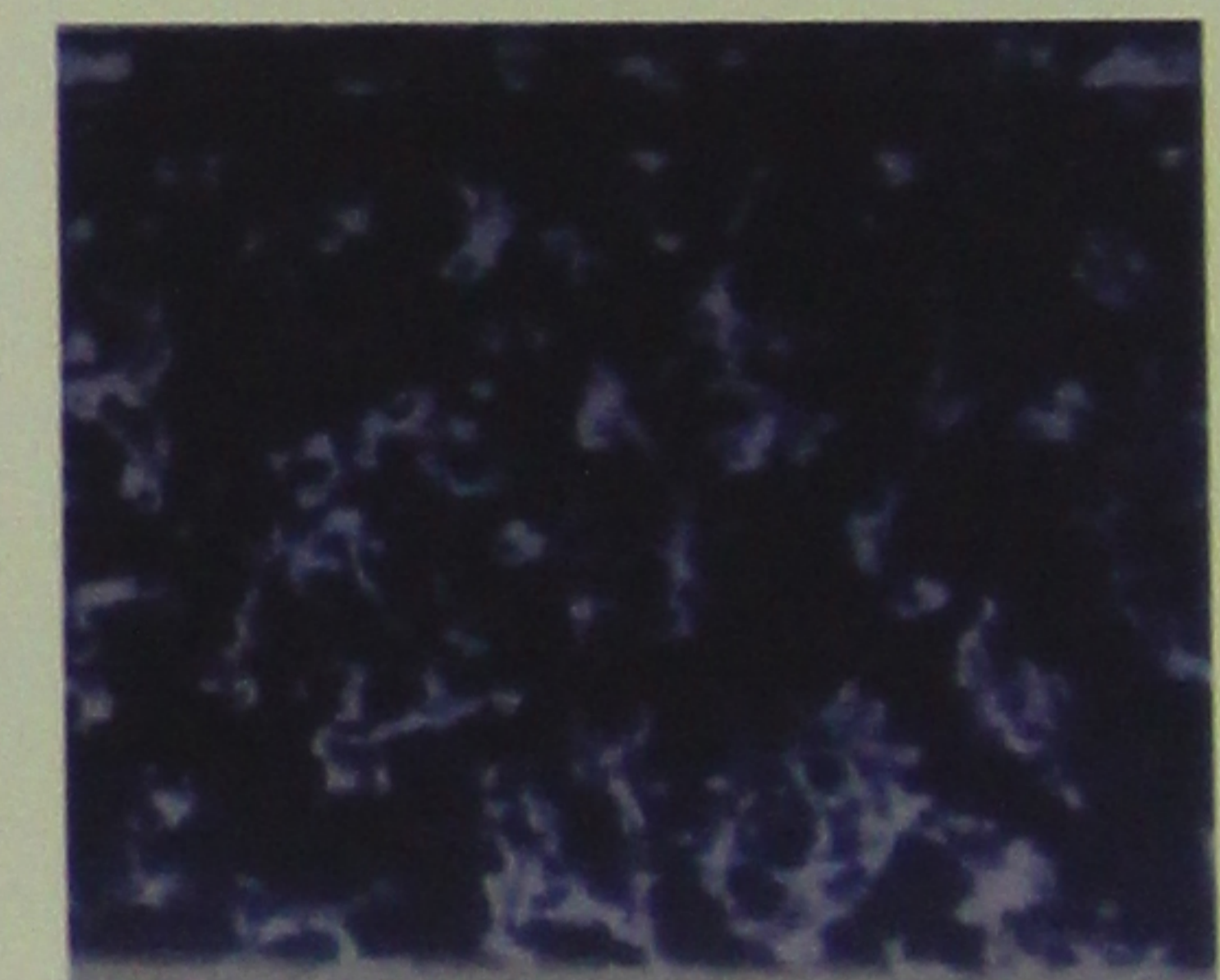


PRODUCT PERFORMANCES

SAMPLE CONDITION AND PROPERTIES	TENSILE STRENGTH (Mpa)	Elongation at break (%)	Modulus (Mpa)
Before natural weathering	10.9	520	216
After 6 month natural weathering	7.3	430	258



SAMPLE CONDITION AND PROPERTIES	TENSILE STRENGTH (Mpa)	Elongation at break (%)	Modulus (Mpa)
Before soil burial	10.9	520	216
After 6 month soil burial	2.8	60	115



POTENTIAL APPLICATION



INDUSTRIAL COLLABORATION

