

Plastic pollution and food waste are urgent problems which require innovative solutions. To determine whether starch based bioplastic from excess potato peels could be one of the solutions, a method of production was developed through systematic trial. Potato starch was extracted from rinsed potato peels. A clear and flexible sheet of bioplastic was produced with 2,5 g starch, 25 cm³ deionized water, 3 cm³ 0,1 M hydrochloric acid and 1 cm³ glycerol. The mixture was stirred at 90°C, and neutralized with 4 cm³ 0,1 M sodium hydroxide, before it was dried at 30°C for three days. Bioplastic placed in buffer solutions (pH3, pH7, pH10) and deionized water for 1 h, 3 and 21 days showed no evidence of solubility, but absorbed liquid. With further modifications, bioplastics from potato peels could be used as an alternative to common plastics to reduce food waste and plastic pollution, contributing to a sustainable future.