

# A Review on Pellet and Pelletization Technique

Aman A. Sheikh<sup>1</sup>, Shivani Suryawanshi<sup>2</sup>, Dr. M. D. Kitukale<sup>3</sup>

Student, Department of Pharmacology<sup>1</sup>

Assistant Professor and Guide M.Pharm<sup>2</sup>

Principal, M.Pharm, Ph.D<sup>3</sup>

Pataldhamal Wadhawani College of Pharmacy, Yavatmal, Maharashtra, India

**Abstract:** *Pelletization technologies have made substantial progress in oral multi-particulate drug delivery systems in the pharmaceutical industry for over 40 years, improving drug efficacy through modified release, enhanced bioavailability, and consistent gastrointestinal distribution. This review outlines various pelletization methods, such as drug layering, extrusion-spheronization, cryopelletization, and others, which convert fine powders or granules into small, free-flowing pellets. Each technique presents distinct advantages and hurdles. Coated pellets are especially efficient for prolonged drug release, utilizing polymeric solutions or aqueous pores for targeted profiles. With increasing focus on pelletization, it provides efficiency and diminished risks in drug delivery relative to traditional methods. The review highlights the need to optimize these techniques while considering factors like particle size and mechanical properties that influence pellet formation and effectiveness.*

**Keywords:** Pelletization technologies, drug layering, pellets, extrusion-spheronization, cryopelletization