

## A REVIEW ON VALIDATION OF *JAMUN* SEED POWDER IN DIABETIC MELLITUS

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Diabetes mellitus is a chronic metabolic disorder characterized by elevated blood glucose levels and remains a global health concern. Among various plant-based interventions explored for glycemic control, *Syzygium cumini* (commonly known as *Jamun*) has gained attention for its antidiabetic properties. This review highlights the therapeutic potential of different parts of *Syzygium cumini*, particularly the seed powder, in the management of diabetes. Bioactive compounds such as jamboline, ellagic acid, and flavonoids present in *Jamun* seeds contribute to hypoglycemic effects through multiple mechanisms, including enhanced insulin secretion, improved insulin sensitivity, and inhibition of carbohydrate-digesting enzymes. Several *in vitro*, animal, and limited clinical studies have demonstrated reductions in fasting blood glucose, HbA1c, and serum lipid levels with *Jamun* seed supplementation. Furthermore, *Jamun* may offer adjunct benefits in controlling diabetic complications through its antioxidant and lipid-lowering effects. This review synthesizes current evidence on the efficacy and mechanisms of *Syzygium cumini* in diabetes management and underscores its potential as a complementary therapeutic agent.

**Keywords:** *Syzygium cumini*, *Jamun*, Diabetes, Hypoglycemia, Blood glucose