

Disclosed herein plant propagation materials, methods of manufacturing, formulations and uses thereof. The plant propagation materials disclosed herein may comprise a strigolactone obtained by a biosynthetic process. The plant propagation material may comprise a chemical mimic of a strigolactone. The strigolactone may be 5-deoxystrigol. Methods of manufacturing the plant propagation materials may comprise a chemical process. Alternatively, methods of manufacturing the plant propagation material may comprise a biosynthetic process. The methods may comprise use of one or more polynucleotides. The polynucleotides may encode a metabolite. The polynucleotides may comprise one or more genes encoding one or more components of a strigolactone pathway.