UNIVERSITY OF WYOMING
Wyoming Technology Transfer and Research Products Center

Plant Translation Methods and Compositions Related Thereto

UW ID: 00-005

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Patent Status:
Patent Issued

Description of Technology

This technology provides methods to affect gene translation in a plant, comprising altering the plant's inherent eIF2α activity. Provided are methods for both increasing and decreasing protein translation in a plant.

Applications

Applications for Plant Translation Methods include the creation of transgenic plants by over-expressing the 'phosphorylatable' eIF2α, which dramatically enhances growth. A small number of plants that this technology is applicable to include, rice, soybean, tobacco, wheat, tomato, and melon.

Features & Benefits

This technology can create yield improvement (especially in grain quality and weight), can improve maturity control, as well as elevate biomass for forages. Also, this technology can create plants with faster seed set and maturity rates.

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