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(54) Title (EN): QUALITY PROTEIN MAIZE BASED ON INCREASED SULFUR REDUCTION IN LEAF CELLS

(54) Title (FR): MAÏS À PROTÉINES DE QUALITÉ BASÉ SUR UNE RÉDUCTION ACCRUE DU SOUFRE DANS DES CELLULES DE FEUILLES

(57) Abstract:

(EN): Compositions and methods to produce maize with improved nutritional content are disclosed. Provided is a method for obtaining maize with kernels that have altered essential amino acid content, comprising crossing a maize plant that has a transgene for leaf-specific expression of 3'-phosphoadenosine-5'-phosphosulfate reductase (PAPR) enzyme with another maize plant that has a RNAi transgene that downmodulates expression of one or more of α -zein, β -zein, and γ -zein. The present invention also provides for compositions with kernels or ground kernel material obtained from maize plants that have altered essential amino acid content.

(FR): L'invention concerne des compositions et des procédés pour produire du maïs présentant un contenu nutritionnel amélioré. L'invention concerne un procédé pour obtenir du maïs dont les grains ont une teneur en acides aminés essentiels modifiée, le procédé consistant à croiser une plante de maïs qui possède un transgène pour l'expression spécifique à la feuille de l'enzyme 3'-phosphoadénosine-5'-phosphosulfate réductase (PAPR) avec une autre plante de maïs qui possède un transgène d'ARNi qui module à la baisse l'expression d'une ou plusieurs des α -zéine, β -zéine et γ -zéine. La présente invention concerne également des compositions dont les grains ou matériau de grains broyés obtenus à partir de plantes de maïs ont une teneur en acides aminés essentiels modifiée.

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