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(54) **TARGETES ERECTA MARIGOLDS WITH ALTERED CAROTENOID COMPOSITIONS AND RATIOS**

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(52) **U.S. Cl.** **800/323; 800/298; 800/295; 426/655; 426/531**

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(58) **Field of Search** **800/323, 298, 800/295; 426/655, 531, 263**

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(57) **ABSTRACT**

A marigold plant, a regenerable portion thereof and seed are disclosed whose flower petals, leaves or flower petals and leaves contain one or more of an enhanced zeaxanthin ratio, an enhanced neoxanthin plus violaxanthin ratio, an enhanced β -carotene ratio, an enhanced α -cryptoxanthin ratio, an enhanced phytoene ratio or an enhanced phytofluene ratio relative to that ratio in a non-mutant marigold. The flower petals of such a plant also typically contain zeta-carotene that is not normally found in such petals. Also disclosed are methods of preparing such plants, oleoresins and comestible materials that have such carotenoid ratios.

37 Claims, 1 Drawing Sheet

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