~~WHAT IS~~ CLAIM~~S ED IS~~:

1. A method of virus-induced gene silencing (VIGS) in *Jatropha* comprising:

(a) inserting a nucleic acid comprising a sequence of a first desired gene to be silenced into a vector comprising a tobacco rattle virus (TRV) RNA2 sequence to produce a modified TRV RNA2 vector;

(b) preparing a mixed culture of *Agrobacterium* comprising *Agrobacterium* containing a vector comprising a TRV RNA1 sequence and *Agrobacterium* containing the modified TRV RNA2 vector;

(c) introducing the mixed culture of *Agrobacterium* into plant tissue of *Jatropha* by vacuum infiltration to produce infected plants; and

(d) growing the infected *Jatropha* plants ~~for a sufficient time~~ to produce systemic TRV infection in the infected *Jatropha* plants and to induce gene silencing of the desired gene.

2. A method of analyzing gene function in *Jatropha* comprising

(a) inserting a nucleic acid comprising a sequence of a first candidate gene the function of which is to be analyzed into a vector comprising a tobacco rattle virus (TRV) RNA2 sequence to produce a modified TRV RNA2 vector;

(b) preparing a mixed culture of *Agrobacterium* comprising *Agrobacterium* containing a vector comprising a TRV RNA1 sequence and *Agrobacterium* containing the modified TRV RNA2 vector;

(c) introducing the mixed culture of *Agrobacterium* into plant tissue of *Jatropha* by vacuum infiltration to produce infected plants;

(d) growing the infected *Jatropha* plants ~~for a sufficient time~~ to produce systemic TRV infection in the infected *Jatropha* plants and to induce gene silencing of the candidate gene; and~~.~~

(e) analyzing the phenotypic effect of the silenced candidate gene on the infected plant.

3. The method of claim 1 or 2, wherein the vector comprising TRV RNA2 and the vector comprising TRV RNA1 are synthetic plant vectors.

4. The method of any one of claims 1 to 3, wherein the sequence of the first desired gene is the sequence of a sense strand of the gene.