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Title: Design, synthesis and evaluation of novel *cis-p*-menthane type Schiff base compounds as effective herbicides

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Graphical Abstract

Design, synthesis and evaluation of novel *cis*-*p*-menthane type Schiff base compounds as effective herbicides

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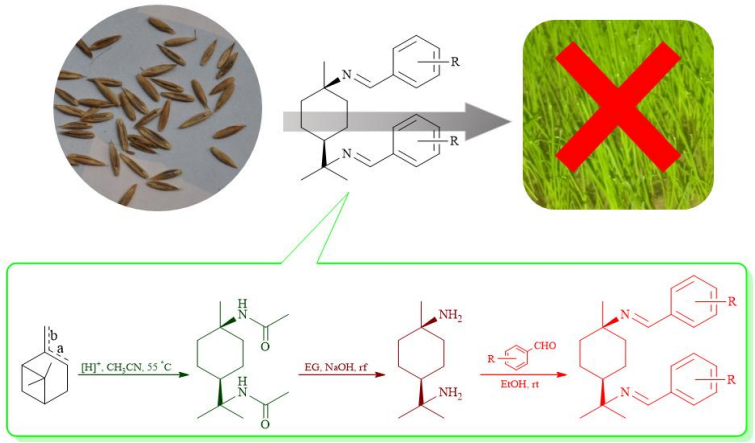

A series of *cis*-*p*-menthane type Schiff base derivatives were designed and synthesized as novel herbicides. Most target compounds displayed excellent herbicidal activities against annual ryegrass in pre-emergence treatment.