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New cultivars of jujube induced by mutation

Mutation breeding of jujube (Ziziphus mauritiana Lin.) received attention by the Food Crops Research Institute since 1978. Mutations can be directly released as new cultivars or indirectly as bud grafting source.

N-methyl-N-nitroso urea (MNH) was used at a concentration of 0.02 - 0.04% for 12 h treatment of pregerminated seeds of different jujube cultivars. Some useful mutants were selected and directly released as new cultivars to farmers. Of the selected mutants two cultivars, "Ma hong" and "Dao tien", are the most preferable and popularly grown in the country.

"Ma hong" is a mutant of "Gia Loc", a very popular cultivar. Main useful traits of "Gia Loc" such as early maturing, two crops of fruits per year are maintained (harvest in December and August). "Ma hong" has round-formed, pink rose coloured, sweeter fruits and stable fruit yield in off-season (Aug.) as compared with oval-formed, yellow-coloured and sour fruit of "Gia Loc".

"Dao tien" is a mutant of the local variety "Thien Phien" with quite different traits. The original cultivar is late maturing (harvested in Feb.) with one crop of fruit per year and has small fruits (mean wt. of fruit at harvest 20 g). "Dao tien" is one month earlier in maturing allowing two crops of fruit per year (harvested in Jan. and Nov.). Fruits are round-formed, bigger (mean wt. of fruit: 25 g) and more tasteful (peach-flavored and brittle).

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