

## عنوان مقاله:

Efficiency of a chemo-thermotherapy technique for eliminating Arabis mosaic virus (ArMV) and Prunus necrotic ringspot virus (PNRSV) from in vitro rose plantlets

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## خلاصه مقاله:

Mosaic is presumably the most commonly encountered viral disease in roses. We have developed chemo-thermotherapy for eliminating Arabis mosaic virus (ArMV) and Prunus necrotic ringspot virus (PNRSV) from rose plants. Chemotherapy and thermotherapy methods were also applied separately and their antiviral effect compared with the chemo-thermotherapy. In this procedure, infected explants were regenerated on MS medium containing ribavirin at concentrations of ۱۰, ۲۰ and ۳۰ mg/l for ۲۰ and ۴۰ days, followed by a thermotherapy treatment for ۳۰ days at ۳۸ °C for ۱۶ hours and ۲۲ °C for ۸ hours per day. The complex of rose viruses (ArMV and PNRSV) were effectively eradicated from regenerated rose plantlets as verified by double- antibody sandwich enzyme- linked immunosorbent assay (DAS-ELISA). Thermotherapy alongside with chemotherapy (containing ۳۰ mg/l per one month) during the period of four weeks was the best treatment for plantlet regeneration and virus elimination. The virus elimination efficiency from ArMV, PNRSV and ArMV + PNRSV infected plants were determined as ۶۳.۳۳%, ۹۰.۰۹% and ۸۵.۱۸%, respectively. A detailed procedure for elimination of mixed viruses is described

## کلمات کلیدی:

Rose mosaic, virus elimination, chemotherapy, thermotherapy, ribavirin

## لینک ثابت مقاله در پایگاه سیویلیکا:

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