

Table of Contents

In Press

Article Archive

HORTSCI (45) 2018

HORTSCI (44) 2017

HORTSCI (43) 2016

HORTSCI (42) 2015

HORTSCI (41) 2014

HORTSCI (40) 2013

HORTSCI (39) 2012

HORTSCI (38) 2011

HORTSCI (37) 2010

HORTSCI (36) 2009

HORTSCI (35) 2008

Issue No. 1 (1-44)

Issue No. 2 (45-94)

Issue No. 3 (95-135)

Issue No. 4 (137-178)

HORTSCI (34) 2007

HORTSCI (33) 2006

HORTSCI (32) 2005

HORTSCI (31) 2004

HORTSCI (30) 2003

HORTSCI (29) 2002

Editorial Board

Ethical Standards

Reviewers 2017

For Authors

Author Declaration

Instruction for Authors

Submission Templates

Guide for Authors

Copyright Statement

Fees

Submission/Login

For Reviewers

Guide for Reviewers

Reviewers Login

Subscription

Study of culture conditions for improved micropropagation of hybrid rose

K.S. Senapati, R.G. Rout

<https://doi.org/10.17221/650-HORTSCI>

Citation: Senapati K.S., Rout R.G. (2008): Study of culture conditions for improved micropropagation of hybrid rose. Hort. Sci. (Prague), 35: 27-34.

[download PDF](#)

An efficient protocol was developed for micropropagation of hybrid roses by manipulating growth regulators, photoperiods, gelling agent and subculture period. Multiple shoots were achieved from nodal explants of *Rosa hybrida* cvs. Cri Cri, Pariser Charme and First Red on the Murashige and Skoog (MS) medium supplemented with 1.5–2.0 mg/l BA (6-benzylaminopurine), 50 mg/l Ads (adenine sulfate) with 3% (w/v) sucrose. Inclusion of indole-3-acetic acid (IAA; 0.1–0.25 mg/l) into the cytokinin-rich medium promoted high frequency of shoot multiplication. The induction of multiple shoots was also affected by photoperiod and subculture period. Higher multiplication was achieved under 16 h photoperiod in all tested cultivars. The rate of multiplication was low when photoperiod both increased or decreased. The frequency of shoot multiplication was best up to the 6th to 7th subculture and thereafter it declined. Rooting was readily achieved upon transferring the microshoots onto half-strength MS medium supplemented with 0.25 mg/l IBA (indole-3-butyric acid) and 2% (w/v) sucrose. The percentage of rooting was less on MS medium containing NAA (1-naphthalene acetic acid) or IAA as compared with IBA. More than 60% of rooted plantlets were established in the greenhouse. The *in vitro* raised plantlets were grown normally and flowered within one month after their transfer to open field.

Keywords:growth regulators; *in vitro*; rose; shoot multiplication
[download PDF](#)
Impact Factor (WoS)2017: **0.5**5-Year Impact Factor: **0.8**
SJIR (SCImago Journal Rank)
SCOPUS:2017: **0.318** – **Q2** (Horticulture)
 Share
Similarity Check

All the submitted manuscripts checked by the [CrossRef Check](#).

New Issue AlertJoin the journal on [Facet](#)**Referred to in**

Agrindex of Agris/FAO da
BIOSIS Previews

CAB Abstracts

CNKI

Czech Agricultural and
Bibliography

DOAJ (Directory of Open
Journals)

EBSCO – Academic Search
Ultimate

EMBIology

Google Scholar

Horticulturae Abstracts

ISI Web of KnowledgeSM

J-GATE

Plant Breeding Abstracts

Science Citation Index Ex

SCOPUS

Web of Science®

Licence terms

All content is made freely
for non-commercial purposes.
Users are allowed to copy
redistribute the material,
transform, and build upon
material as long as they
source.

Open Access Policy

This journal provides immediate
open access to its content on the
principle that making research
freely available to the public
supports a greater global
exchange of knowledge.

Contact

Ing. Eva Karská

Executive Editor

phone: + 420 227 010 606

e-mail: hortsoci@cazv.cz**Address**

Horticultural Science

Czech Academy of Agricultural
SciencesSlezská 7, 120 00 Praha 2,
Republic