

## Table of Contents

## In Press

## Article Archive

[HORTSCI \(45\) 2018](#)[HORTSCI \(44\) 2017](#)[HORTSCI \(43\) 2016](#)[HORTSCI \(42\) 2015](#)[HORTSCI \(41\) 2014](#)[Issue No. 1 \(1-47\)](#)[Issue No. 2 \(49-99\)](#)[Issue No. 3 \(101-151\)](#)[Issue No. 4 \(153-200\)](#)[HORTSCI \(40\) 2013](#)[HORTSCI \(39\) 2012](#)[HORTSCI \(38\) 2011](#)[HORTSCI \(37\) 2010](#)[HORTSCI \(36\) 2009](#)[HORTSCI \(35\) 2008](#)[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

## Allele-specific PCR detection of sweet cherry self-incompatibility alleles $S_3$ , $S_4$ and $S_9$ using consensus and allele-specific primers in the Czech Republic

K. Sharma, P. Sedlák, D. Zeka, P. Vejl, J. Soukup

<https://doi.org/10.17221/89/2014-HORTSCI>

Citation: Sharma K., Sedlák P., Zeka D., Vejl P., Soukup J. (2014): Allele-specific PCR detection of sweet cherry self-incompatibility alleles  $S_3$ ,  $S_4$  and  $S_9$  using consensus and allele-specific primers in the Czech Republic. Hort. Sci. (Prague), 41: 153-159.

[download PDF](#)

*Prunus avium* species of the Rosaceae family exhibit gametophytic self-incompatibility. Determination of the self-incompatibility genotype of individuals is essential for genetic studies and the development of informed management strategies. The PCR-based detection of S-allele helps to promote and speed up traditional breeding activity and hence molecular analysis of the perspective genotypes has become more intensive in all cherry growing countries. The alleles  $S_3$ ,  $S_4$  and  $S_9$  from 34 accessions of Czech collections were determined using the polymerase chain reaction (PCR) method. Initially, DNA extracts were amplified with consensus primers that amplify across the first, second, or both introns of the S-ribonuclease gene which shows a considerable length polymorphism. The new allele specific primers were designed with the goal to overcome some occurring difficulties in the detection of expected alleles by previously published allele specific primers. S-alleles fragments of standard cultivars used in this study were PCR amplified, sequenced to validate the designed primers. The study demonstrates the advantage of newly designed primers application in testing of sweet cherry genotypes.

**Keywords:**

*Prunus avium*; S-alleles; allele-specific primers; consensus primers

[download PDF](#)

## Impact Factor (WoS)

2017: 0.5

5-Year Impact Factor: 0.8

SJR (SCImago Journal Rank SCOPUS):

2017: 0.318 – Q2 (Horticult

 Share

## Similarity Check

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

## New Issue Alert

Join the journal on [Facebook](#)

## Referred to in

Agrindex of Agris/FAO da  
BIOSIS Previews  
CAB Abstracts  
CNKI  
Czech Agricultural and Fc  
Bibliography  
DOAJ (Directory of Open  
Journals)  
EBSCO – Academic Search  
Ultimate  
EMBIology  
Google Scholar  
Horticulturae Abstracts  
ISI Web of Knowledge<sup>SM</sup>  
J-GATE  
Plant Breeding Abstracts  
Science Citation Index Ex  
SCOPUS  
Web of Science<sup>®</sup>

## 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 cite the 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: [hortsci@cazv.cz](mailto:hortsci@cazv.cz)

## Address

Horticultural Science  
Czech Academy of Agricultural Sciences

