

S.K.Turasheva

APPLICATIONS OF PLANT BIOTECHNOLOGY









AL-FARABI KAZAKH NATIONAL UNIVERSITY

S.K. Turasheva

APPLICATIONS OF PLANT BIOTECHNOLOGY

Monograph

Almaty «Qazaq University» 2020 UTC 58(075.8) BBK 288.5ya73 T 86

Recommended for publication by the Academic Council of the University (Protocol No. 4 dated 30.11.2020) and Publishing Board of Al-Farabi Kazakh National University (Protocol No. 2 dated 24.12.2020)

The Best Professor of Universities-2019

Peer reviewers:

K.Zh. Zhambakin – Dr., Professor, Academician of the National Academy of Science of the Republic of Kazakhstan,

General Director of the Institute of Plant Biology and Biotechnology;

A.T. Ivachshenko – Dr., Professor, Department of Biotechnology,

Al-Farabi Kazakh National University;

A.K. Bissenbaev – Dr., Professor, Academician of the National Academy of Science of the Republic of Kazakhstan, General Director of the Institute of Problem of Biology and Biotechnology at Al-Farabi Kazakh National University

Turasheva S.K.

Applications of Plant Biotechnology: monograph. – Almaty: T 86 Qazaq University, 2020. – 112 p.

ISBN 978-601-04-4902-2

The monograph presented the applied aspects of plant biotechnology in the field of agriculture, medicine, processing industry, as well as to solve fundamental problems of cell and molecular biology.

Monograph contains theoretical and practical material usefull for researchers, specialists, Bachelor students, studied on a multilingual educational program, students of Master's and PhD degree.

Author's edition

UTC 58(075.8) BBK 288.5ya73

CONTENT

INTRODUCTION
CHAPTER 1. APPLICATION OF PLANT BIOTECHNOLOGY IN AGRICULTURE
CHAPTER 2. APPLICATION THE CELL TECHNOLOGY TO PROPAGATE AND PRESERVE THE GENE POOL OF RARE AND ENDANGERED PLANT SPECIES
CHAPTER 3. USING METHODS OF PLANT MOLECULAR BIOTECHNOLOGY66
CHAPTER 4. BIOTECHNOLOGIES FOR THE PRODUCTION OF BIOLOGICALLY ACTIVE SUBSTANCES OF PLANT ORIGIN USED IN MEDICINE, FOOD AND PROCESSING INDUSTRIES
CHAPTER 5. APPLICATION OF PLANT CELL CULTURE FOR SOLVING FUNDAMENTAL PROBLEMS OF CELL BIOLOGY
ACKNOWLEDGEMENTS101
REFERENCE 102

Scientific publication

Turasheva Svetlana Kazbekovna

APPLICATIONS OF PLANT BIOTECHNOLOGY

Monograph

Typesetting: *B. Malayeva* Cover design: *B. Malayeva*

Cover design photos were used from sites www.freepik.com

IB No.14047

Signed for publishing 25.12.2020. Format 60x84 1/16. Offset paper.

Digital printing. Volume 7,0 printer's sheet. 500 copies. Order No.15032.

Publishing house «Qazaq University»

Al-Farabi Kazakh National University

KazNU, 71 Al-Farabi, 050040, Almaty

Printed in the printing office of the «Qazaq University» Publishing House.