

JOURNAL OF AGRIBUSINESS
AND RURAL DEVELOPMENT

4(70) 2023

October – December

SCIENTIFIC BOARD

Journal of Agribusiness and Rural Development

Walenty Poczta – chairman – Poznań University of Life Sciences (Poland)

Encarnación Algaba (University of Seville, Spain), **Vito Fragnelli** (University of Eastern Piedmont, Italy), **Clemens Fuchs** (Neubrandenburg University of Applied Sciences, Germany), **Michał Jerzak** (Poznań University of Life Sciences, Poland), **Wojciech Józwiak** (Institute of Agricultural and Food Economics – National Research Institute, Warsaw, Poland), **Dieter Kirschke** (Humboldt-Universität zu Berlin, Germany), **A. Ali Koç** (Akdeniz University, Turkey), **Władysława Łuczka** (Poznań University of Life Sciences, Poland), **Alex F. Mc Calla** (University of California, Davis, USA), **Heinrich Schüle** (Nürtingen-Geislingen University, Germany), **Miroslav Svatoš** (Czech University of Life Sciences Prague, Czech Republic), **Loren W. Tauer** (Cornell University, Ithaca, USA), **Iveta Ubrežiová** (Slovak University of Agriculture in Nitra, Slovakia), **Jacques Viaene** (Ghent University, Belgium), **Jerzy Wilkin** (Institute of Rural and Agricultural Development PAS, Warsaw, Poland)

EXECUTIVE BOARD

Journal of Agribusiness and Rural Development

Prof. Ewa Kiryluk-Dryjska – **editor-in-chief**
tel. +48 61 846 6984, e-mail: ekiryluk@up.poznan.pl

Prof. Agnieszka Baer-Nawrocka – **deputy editor-in-chief**
tel. +48 61 846 6373, e-mail: baer-nawrocka@up.poznan.pl

Prof. Małgorzata Kołodziejczak – **scientific secretary**
tel. +48 61 846 6377,
e-mail: malgorzata.kolodziejczak@up.poznan.pl

Kinga Smolińska, PhD – **scientific secretary**
tel. +48 61 848 6235, e-mail: kinga.smolinska@up.poznan.pl

Prof. Aleksandra Łuczak – statistical editor

Prof. Lucia Bednářová – topic editor

Prof. Zbigniew Gołaś – topic editor

Prof. Joseph Onwumere – topic editor

Pavel Kotyza, PhD – topic editor

Paulina Kaczmarek, MSc – proofreader

Technical support

Olga Weber, MSc – language editor

Chad Beaman, BSc – language editor

Native English – language proofreading, <https://native-english.pl/>

Stanisław Tuchołka, MSc – desktop publishing

Dawid Jabkowski, PhD

JOURNAL OF AGRIBUSINESS AND RURAL DEVELOPMENT

Quarterly on problems of agribusiness and rural areas

4(70) 2023

October – December



POZNAN 2023

Website
<http://www.jard.edu.pl>

© Copyright by Wydawnictwo Uniwersytetu Przyrodniczego w Poznaniu, Poznań 2023, Poland

Exchange of university publications by Main Library, Poznań University of Life Sciences,
Witosa 45, 60-693 Poznań, Poland

This journal is the open access and non-profit enterprise. The published papers may be collected, read and downloaded free of charge – with Author's rights reserved. We have adopted a Creative Commons licence CC BY-NC.

ISSN 1899-5241 (print) – original version
ISSN 1899-5772 (online)

WYDAWNICTWO UNIWERSYTETU PRZYRODNICZEGO W POZNANIU
PUBLISHING HOUSE, POZNAŃ UNIVERSITY OF LIFE SCIENCES

Nakład 50 egz. Ark. wyd. 12,2. Ark. druk. 14,5.

Print: Zakład Graficzny Uniwersytetu Przyrodniczego w Poznaniu, ul. Wojska Polskiego 67,
60-625 Poznań

This Journal is covered by: Agro-Librex, AgEcon Search, BazEkon, The Central European Journal of Social Sciences and Humanities (CEJSH), Directory of Open Access Journals (DOAJ), ERIH PLUS, Google Scholar, Index Copernicus