

INTRODUCTION

For a long time, oil radish (*Raphanus sativus* L. var. *oleiformis* Pers.) was considered to be a rare plant. However, since the mid-1970s, it has been used in spring post-mowing and post-harvest crops in the system of conveyor production of green fodder. Very quickly, this crop conquered new areas for various purposes not only in the former Soviet Union, but also in Poland, Germany, the Netherlands, and Finland. The crop was firmly established as an extremely plastic and high-yielding species capable of growing from early spring to late autumn both in monoculture and in grass mixtures of various compositions, forming 30 to 70 t ha⁻¹ of leaf mass balanced in terms of digestible protein content and valuable in terms of biochemical composition in terms of fiber structure, macro and microelements, and glucosinolates in 40–50 days of vegetation.

The multi-purpose study of this crop in different soil and climatic zones made it possible to formulate the main positive features that the crop potentially possesses: unpretentiousness to growing conditions and predecessor in crop rotation, high productivity and nutritional value, productive post-harvest and post-harvest use, high intensity of the root system functioning, relative tolerance to changes in sowing dates, fast growth rates, high positive response to mineral fertilization, high competitiveness to segetal vegetation, and possible

Despite a certain amount of research on the crop, its biological, physiological and technological aspects have a lot of contradictory data and generalizations. Like other agricultural crops, oil radish is unique and inimitable and in many respects requires rethinking of methodological approaches and assessments, reformatting of its cultivation technologies in view of the current level of technical equipment and purposes of use. This monograph will greatly contribute to this.

The authors of the monograph aimed to reveal the value and multifaceted nature of oil radish as an important productive element of modern agricultural landscapes of Ukraine based on the analysis of data from long-term studies of various research institutions around the world. The presented data of this generalization are closely intertwined with the authors' own research, which is still ongoing within the framework of the state theme "Development of environmentally friendly technologies for growing bioenergy crops to ensure energy independence and soil conservation for the formation of climate neutrality" (state registration number 0124U000483).