

EXPERIMENT AND MATHEMATICAL SPIRIT IN GREGOR MENDEL'S RESEARCH

Abstract. University courses and textbooks in genetics, new or old, published in Romania or abroad, do not fail to mention in the chapter dealing with classic genetics, the name of Gregor Mendel, founder of genetics. However, most of them prove lack of knowledge concerning his work "Versuche über Pflanzenhybriden" (1866). They interpret Mendel's experimental research in a personal and rather in incorrect way.

The present article analyses Mendel's contribution to the founding of genetics. It shows the true genius of Mendel to couple mathematical thinking with the methodology of genetic experiments. More precisely, the analysis shows how courses and textbooks fail to present the original statement of Mendel regarding the law of independent segregation (the second law of hybrid heredity). This statement is generally substituted with a series of personal interpretations which elude the true significance of Mendel's scientific approach, the perfect combination between rigorous experimental methodology and solid mathematical interpretation. The article underlines the fact that the second law of hybrid heredity, as stated by Mendel and the rational, mathematical way in which the founder of genetics has reached his conclusions have both theoretical and pragmatical values which are far superior to the "sui generis" interpretations belonging to the authors of courses and textbooks. They risk to be incorrect to Mendel's priority in discovering the laws of heredity and to the scientific truth.

Primit: 20.11.2000

Universitatea de Nord Baia Mare
Facultatea de Științe
Catedra de Biologie
Victoriei 76, 4800 Baia Mare
ROMANIA