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Nota di contenuto	General introduction -- The linear phenotypic selection index theory -- Constrained linear phenotypic selection indices -- Constrained linear phenotypic selection indices -- Linear marker and genomic selection indices -- Linear genomic selection indices -- Constrained linear genomic selection indices -- Linear phenotypic eigen selection index methods -- Linear molecular and genomic eigen selection index methods -- Multistage linear selection indices -- Stochastic simulation of four linear phenotypic selection indices -- RIndSel: Selection indices with R.
Sommario/riassunto	This open access book focuses on the linear selection index (LSI) theory and its statistical properties. It addresses the single-stage LSI theory by assuming that economic weights are fixed and known - or fixed, but unknown - to predict the net genetic merit in the phenotypic, marker and genomic context. Further, it shows how to combine the LSI theory with the independent culling method to develop the multistage selection index theory. The final two chapters present simulation results and SAS and R codes, respectively, to estimate the parameters

and make selections using some of the LSIs described. It is essential reading for plant quantitative geneticists, but is also a valuable resource for animal breeders.