

The logo features the word "syngenta" in a dark blue, lowercase sans-serif font, with a single green leaf icon above the letter 'g'. Below it, the words "CROP CHALLENGE" are written in a green, uppercase, spaced-out sans-serif font. The entire logo is set against a light blue circular background.

syngenta
CROP CHALLENGE

The logo consists of the word "BioSense" in a white, bold, sans-serif font, centered within a solid green rectangular box.

BioSense

The text "Novi Sad, Serbia" is written in a bold, black, sans-serif font, centered within a white rectangular box.

Novi Sad, Serbia

The text "BROUGHT TO YOU BY" is written in a small, black, uppercase, sans-serif font.

BROUGHT TO YOU BY

The logo features the word "informatics" in a white, lowercase, sans-serif font, centered within a blue rectangular box. A registered trademark symbol (®) is located to the right of the box.

informatics®





CROP CHALLENGE

>80,000 uzoraka

5/180 sorti soje

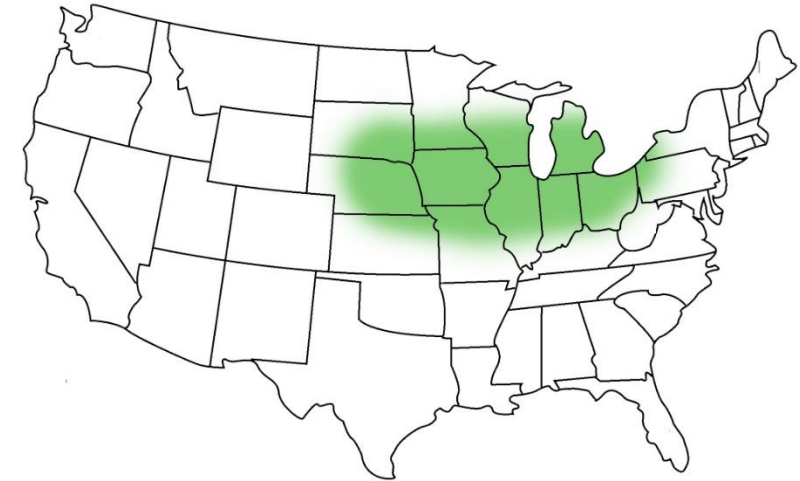
Maksimizovati prinos

Minimizovati rizik



FEATURES

Feature	Explanation
Yield	Amount of grain per unit of land
Check yield	Commercial variety's yield used as performance benchmark
Yield difference	Difference between yield and check yield
Year	Year in which the variety was planted
Planting date	Planting date
Geographic coordinates	GPS latitude and longitude of the farm or region
Temperature	Sum of daily temperatures in C° in growing season
Precipitation	Sum of daily precipitations in mm in growing season
Solar radiation	Sum of daily solar radiation in W/m^2 in growing season
CEC	Cation exchange capacity
pH	log of H^+ concentration in soil
Organic matter	Percentage of soil made up of organic matter
Soil class	Soil class category
Area	Probability of growing soybeans in the subregion
PI	Soil productivity index



PREDIKCIJA PRINOSA

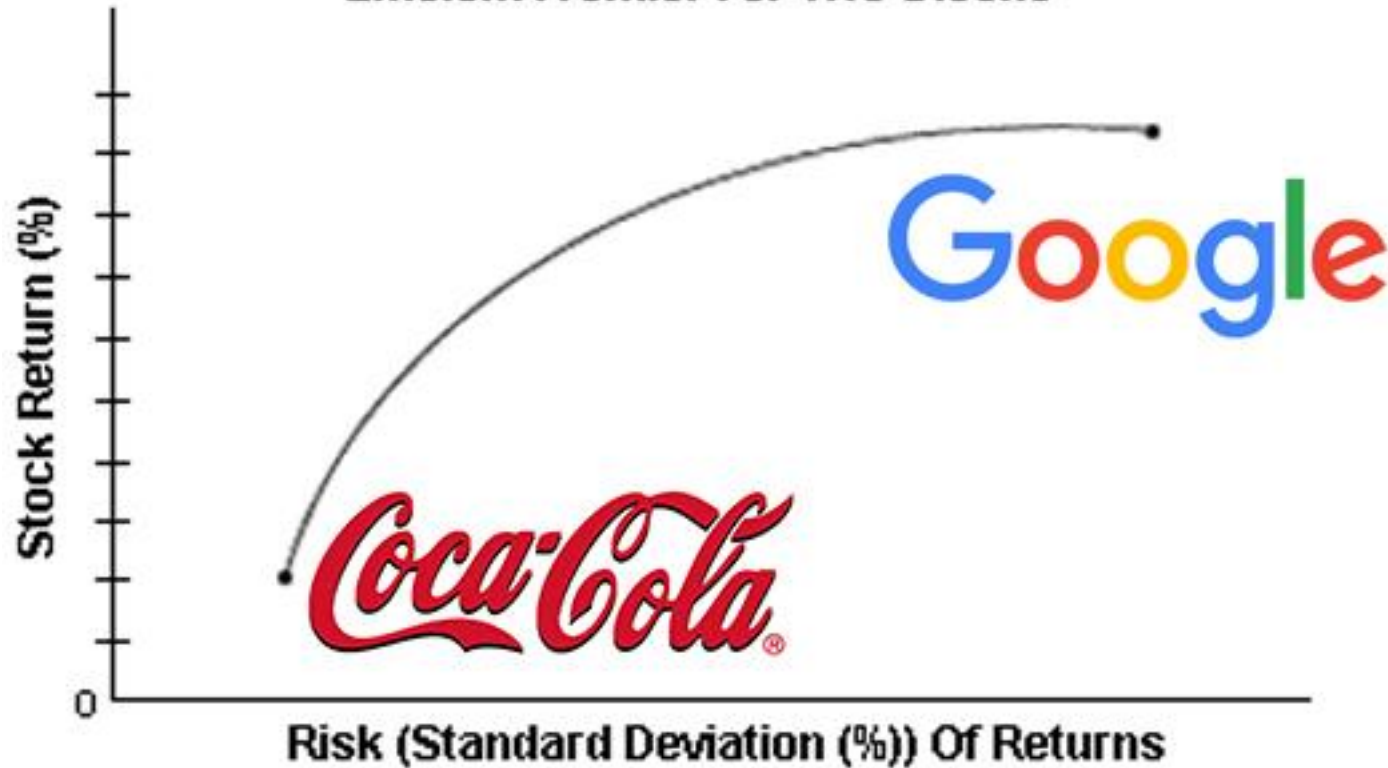
Tačnost $\pm 15\%$

Classification method	RMSE	Mean absolute error	Correlation coefficient
k-NN	14.674	11.863	20.26%
Linear regression	11.201	9.005	26.09%
ANN (multilayer perceptron)	29.159	23.050	11.00%
Regression trees	13.508	11.035	19.49%
equ-WHR	10.446	8.374	20.36%
con-WHR	10.198	8.216	20.86%
unc-WHR	9.313	7.365	41.71%

[bu/ac]

OPTIMIZACIJA PORTFOLIJA

Efficient Frontier For Two Stocks



Investicije = sorte soje

Profit = prinos

Uzrok rizika: vremenske prilike



BioSense INSTITUTE

OPTIMIZACIJA PORTFOLIJA

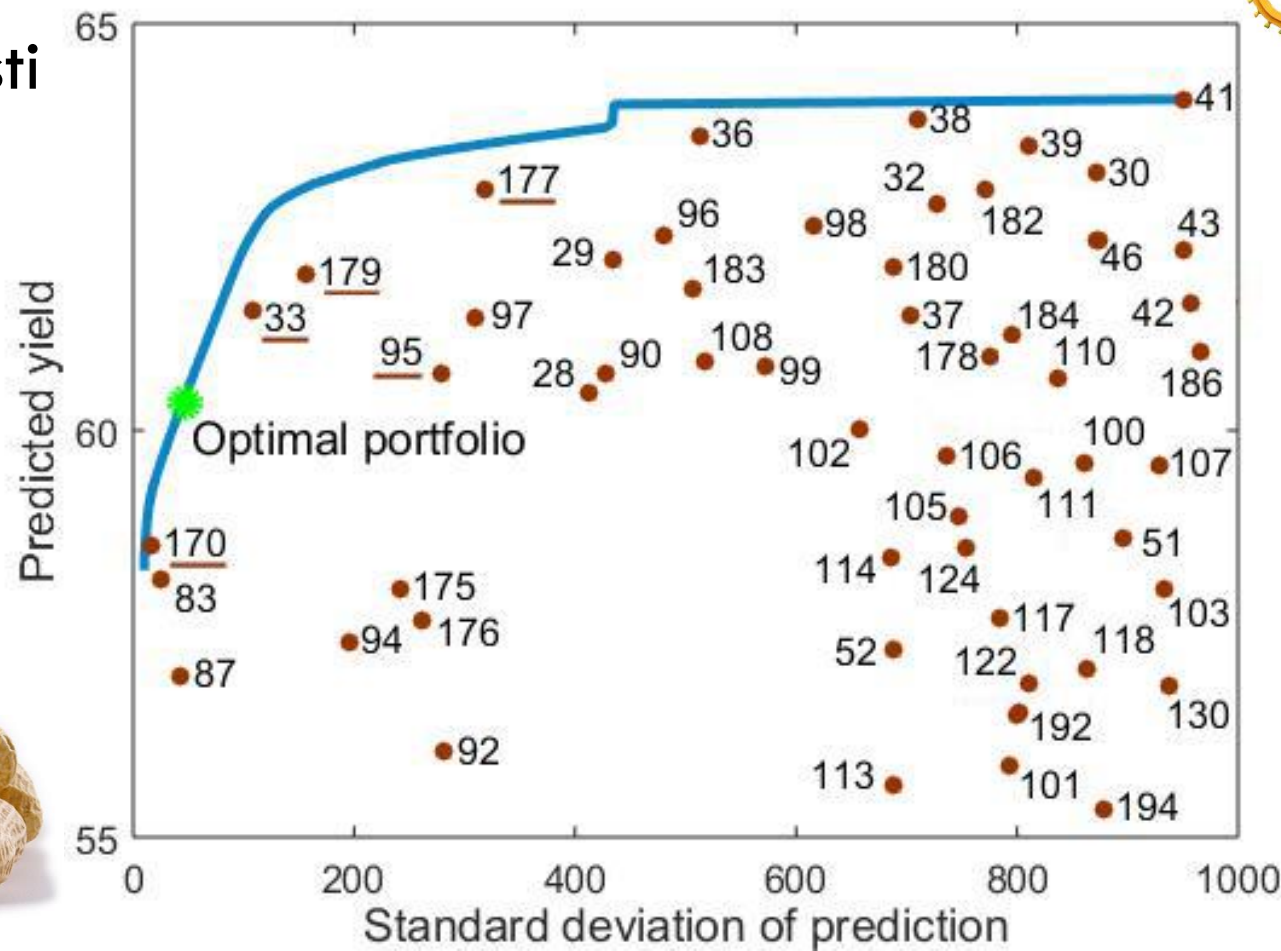




OPTIMIZACIJA PORTFOLIJA

Granica efikasnosti

Najbolji prinos za dati rizik





REZULTATI

Prosečno povečanje prinosa: 9,4%

Maksimalno povečanje prinosa: 23%

Povečanje prinosa zabeleženo na preko 85% njiva

Dodatna investicija: 0 din



REZULTATI

