



WHEAT CROP DISEASE PREDICTOR

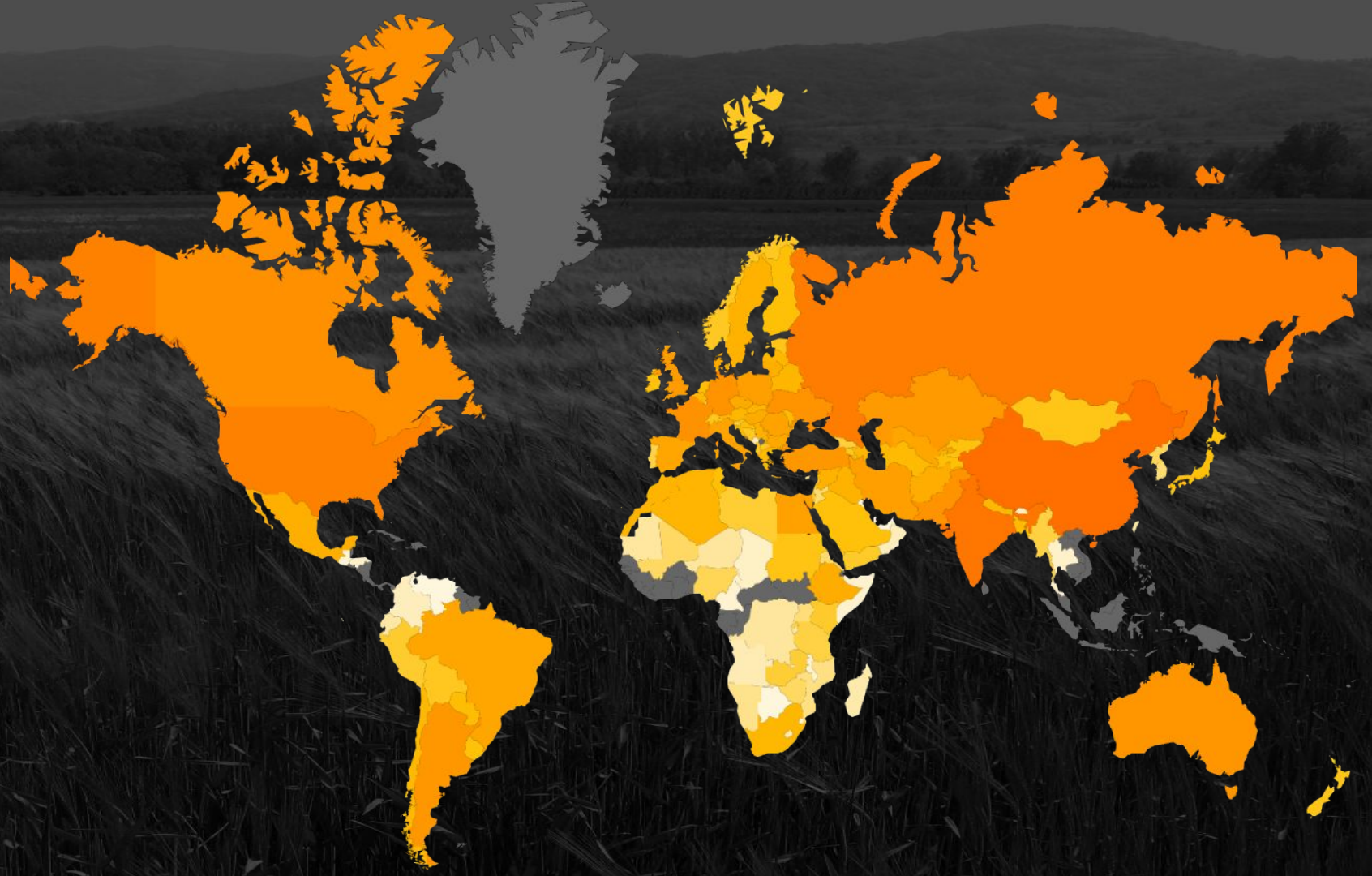


Saturdays.AI
Murcia

PROJECT DEVELOPED BY:

- Fernando Molina Molina
- Jose M. Rocamora Bernabeu
- Joaquín Alfonso González

WHEAT 27,4%
WORLD
CEREAL
PRODUCTION



WHEAT LOSSES 2020

-28% ≈ -213Mt



WHAT CAN WE DO ?

(WITH MACHINE LEARNING)



Wheat crop disease predictor

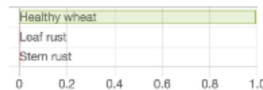
A machine learning algorithm to correctly classify if a plant is healthy, has stem rust, or has leaf rust.

Select a wheat image to classify

Upload & classify image



Healthy
wheat
99.30%



Prediction

Leaf Rust info

Stem Rust info

Print report



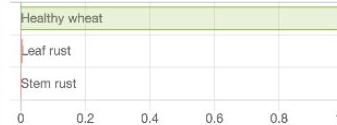
Saturdays.AI
Murcia

Saturdays.AI Murcia project developed by Fernando Molina, Jose M. Rocamora & Joaquín Alfonso

MacBook Pro



Healthy
wheat
99.30%



Prediction

Leaf Rust info

Stem Rust info

Print report



Leaf rust
100.00%



Prediction

Leaf Rust info

Stem Rust info

Print report



Healthy
wheat
98.20%



Prediction

Leaf Rust info

Stem Rust info

Print report



Stem rust
100.00%



Prediction

Leaf Rust info

Stem Rust info

Print report



TEST SET

Confusion matrix

Real	Healthy	30	4	0
	Leaf	1	72	10
	Stem	2	7	78
		Healthy	Leaf	Stem
		Prediction		

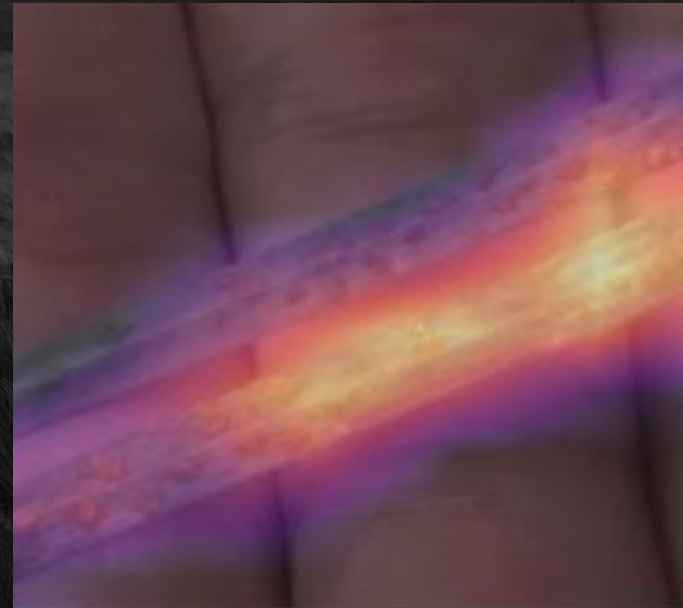
Accuracy
 $\approx 90\%$

ORIGINAL IMAGE



Leaf rust

HEAT MAP



Leaf / Leaf / 0.27 / 0.76

NEXT STEPS

**+ CROPS
+ DISEASES**

**LOCATION
MURCIA**

**AUTOMATION
API REST**

**ACCESSIBILITY
APP**

THANKS



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