



AGRO-METEO INFORMATION FOR THE ORGANIC FERTILIZATION IN THE PO PLAIN

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Introduction: Nitrogen fertilization of soil can negatively impact the quality of water and air resources. Therefore, the European legislation (Directive 91/676/EC), and the following national legislation (ITA D.lsg 152/2006 and D.M. n 5046/2016) requires Administrations to guide farmers to the correct use of organic fertilizers, in the period of greatest criticality, in order to ensure the recovery of nutrients necessary for crops and soil fertility and prevent environmental degradation.

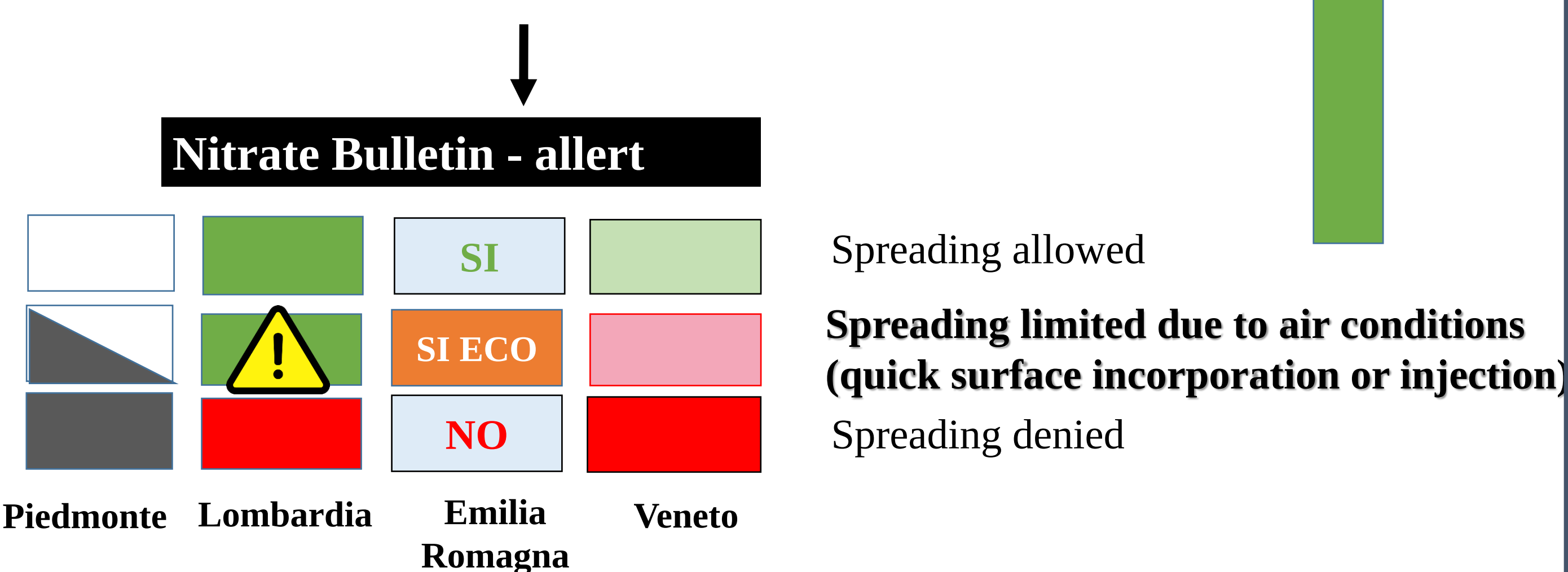
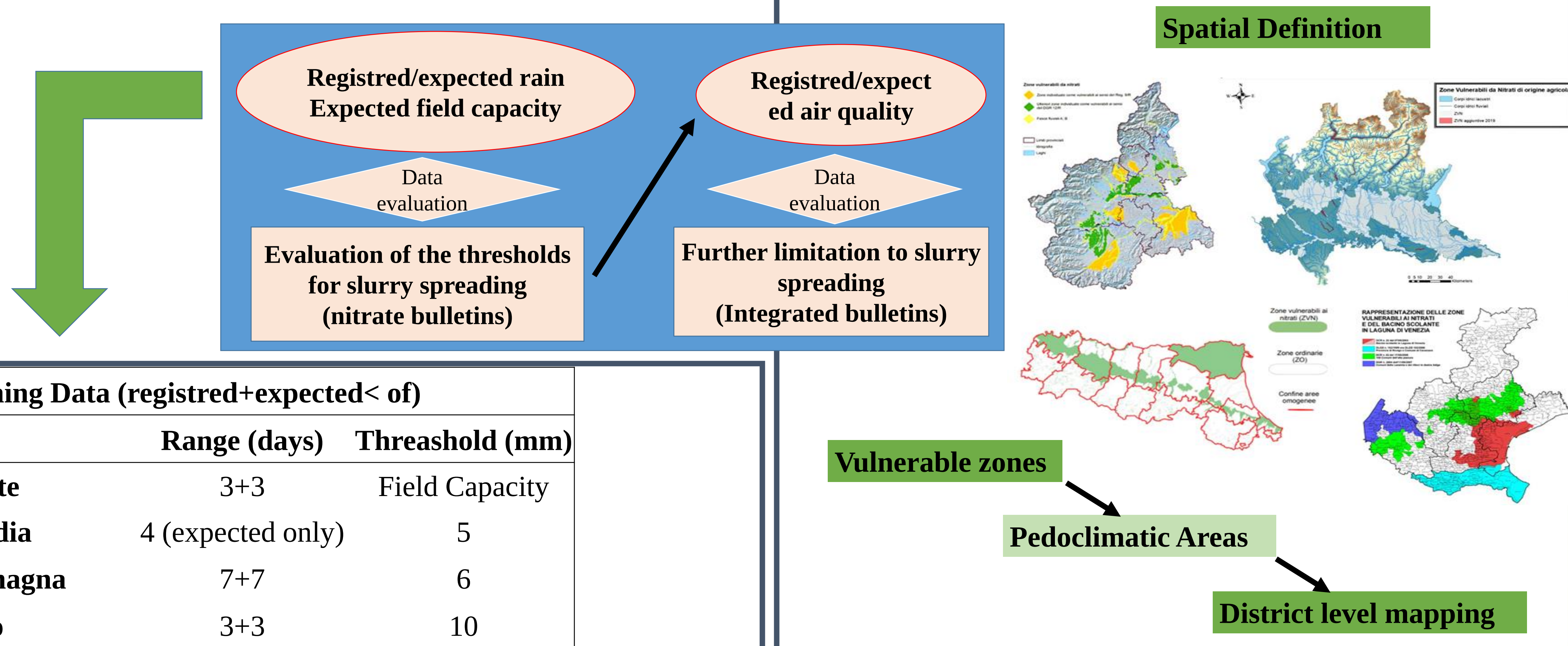
Materials and Methods: The regional agencies for environmental protection (ARPA) and regions have implemented a system based on specific bulletins defined through agrometeorological models, which take into account rainfall and local pedological conditions.

After the judgment of the European Commission for the quality of the air in the Po valley (CJEU nov 10th, 2020), regional strategies shall be implemented with measures to reduce the concentrations of atmospheric particulate from agricultural sources.

The bulletins models can be implemented with air quality data in order to reduce the concentrations of atmospheric particulate from agricultural sources.

Results: Structure and models of integrated bulletins

	LOMBARDIA	PIEMONTE	EMILIA ROMAGNA	VENETO
Critical period			Nov-Feb	
Absolute deny spreading	32 days (Dic 15 th - Jan 15 th)	62 days (Dic 1 st - Jan 31 st)	62 days (Dic 1 st - Jan 31 st)	62 days (Dic 1 st - Jan 31 st)
Bulletin frequency	2/week	3/week	3/week	Daily
Regional zoning	6 Pedoclimatic zones	6 Pedoclimatic zones	17 Pedoclimatic zones	15 Pedoclimatic zones



Air quality (registered+expected)		
	Range (following days)	Threshold (µg m ³)
Piemonte	3 (registered only)	50
Lombardia	4 (registered only)	50
Emilia Romagna	1+2	50
Veneto	3 (registered only)	50

Air Bulletin – integrated in 2021

	1° alert for air quality (>50 µg m ³ for 3/4 days)
	2° alert for air quality (>50 µg m ³ for 10 day)

Conclusion: integrated bulletins will assure the complete interaction between environmental conditions and air quality in order to assure a better management of organic fertilizers, during autumn-winter period in the Po Plain, and the recovery of important nutrients for crop growth in a sustainable way.

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