

RAGWEED POLLEN SPREADING IN ITALY

***Italian Association of Aerobiology (A.I.A.)
Italian Monitoring Network in Aerobiology
(R.I.M.A.®)***

e-mail: aia@ilpolline.it

Background

- The Italian Monitoring Network in Aerobiology (R.I.M.A.®) has been operating since 1985
- Five species of ragweed are present in Italy

	VDA	PIE	LOM	TAA	VEN	FVG	LIG	EMR	TOS	MAR	UMB	LAZ	ABR	MOL	CAM	PUG	BAS	CAL	SIC	SAR
<i>A. artemisiifolia</i> L.	+A	+A	+A	+A	+A	+A	+A	+A		+A		+A			0A					
<i>A. maritima</i> L.					+A	+	+	+	+	0		+	+	+	+	+	+	?	+	+
<i>A. psilostachya</i> Auct.(<i>A. coronopifolia</i> Torr. & A. Gray)	+A	+A	+A	+A	+A	+A	+A	+A	+A	+A	+A	+A	+A							
<i>A. tenuifolia</i> Spreng.	?A	-		+A				+A												
<i>A. trifida</i> L.	+A				+A		+A			+A		+A			0A					

- In the first years of R.I.M.A.® activity, ragweed pollen was recorded only in northern regions such as Lombardy, Piedmont and Emilia Romagna

2011

- Since then, it has been detected in central and southern Italy, too.
- However, values recorded in these regions are significantly lower than those recorded in the northern regions (R.I.M.A.® weekly bulletins are specific to different macro areas).

	Season start	Season end	Season duration (days)	Day of peak	Peak (p/m ³)	SPI
Alps and Pre-Alps	12 - Aug	22 - Sept	42	31 - Aug	38.8	529.5
Po valley	11 - Aug	22 - Sept	43	27 - Aug	281.1	3208.7
North Tyrrhenian	09 - Aug	27 - Sept	49	29 - Aug	4.1	56.0
North Adriatic	17 - Aug	17 - Sept	31	30 - Aug	13.2	110.1
Central Tyrrhenian *	09 - Aug	30 - Sept	52	11 - Aug	0.7	16.0
Central Adriatic *	03 - Aug	02 - Oct	61	28 - Aug	4.5	31.3
South Tyrrhenian *	15 - Aug	25 - Aug	11	15 - Aug	1.6	7.0
South Adriatic-Puglia *	04 - Jul	08 - Aug	36	15 - Jul	4.8	46.1
Sicily*	10 - Aug	25 - Sept	47	12 - Sept	2.2	11.0

* Sporadic observations

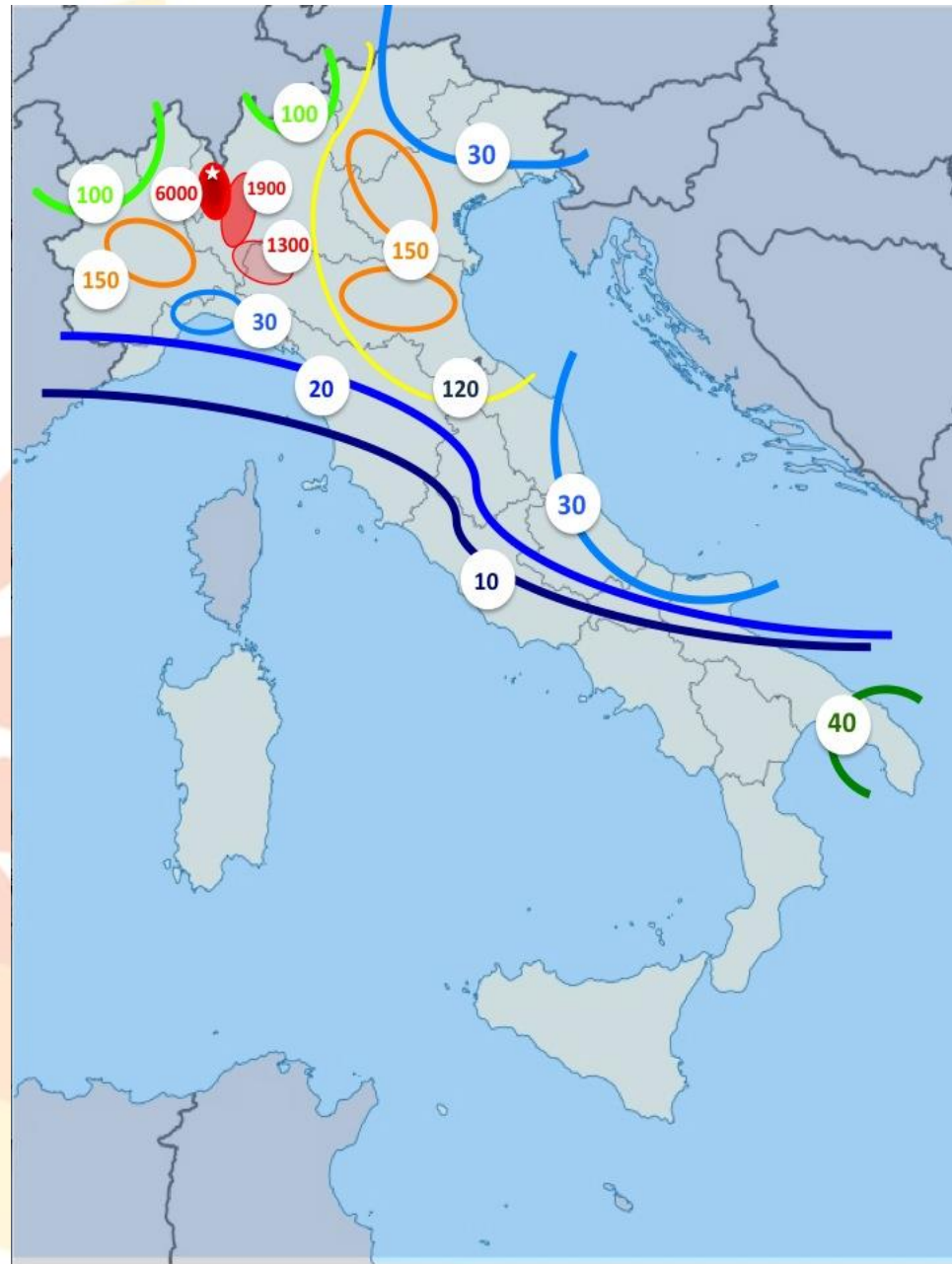
Table 2. Start and end of the pollen season in 2011, the duration expressed in days for each macro area, the Seasonal Pollen Index (SPI), and the peak values⁷.

2011

Moreover, within the Po valley, some areas of Lombardy (North-Western Milan area and South Varese area) represent the most polluted areas by ragweed in Italy and in Europe.

For example, during 2011, a station located in the Milan area showed 6,915 SPI and a daily peak of 1,001 p/m^3 , whilst the SPI of the North-Western Milan area and South Varese area was 6,043 with a daily peak of 519 p/m^3 .

The rest of the Po valley macro areas presented lower values



The isolines represent the spatial distribution of the ragweed SPI for year 2011

Conclusion

- The public administration of Central and Southern Italy must keep attention in order to avoid an increase of ragweed spread in their territories