

Iteipmai's PA calculator

Why did we develop this little calculator ?

1- to answer to requests from our MAP producers :

from how many plants of Senecio is there a danger of exceeding the authorized limits ?

I have a lot of forget-me-not in a part of my field; must I withdraw that part or not ?

2- to help people to understand the seriousness of the situation

How did we develop this little calculator ?

Using an easy to use Excel Spreadsheet,

With data collected from bibliography and from analysis performed by COFRAC laboratories,

We make regular Updates of the collected data

How to use it ?

Thank you to the French Ministry of Agriculture
(FranceAgriMer) for its financial support

Iteipmai's PA calculator

How to use it ?

This little calculator aims to give an **estimate** of PA contamination after visual evaluation of weeds in the field

1 - COLUMNS TO COMPLETE						2 - READING THE RESULTS									
Select your weed(s) in column B, then complete columns C to G for the chosen weed(s) - 1 line per weed <i>1ha = 10 000m² = 100m x 100m, 1are = 0,01ha = 100m² = 10m x 10m - DM = Dry Weight</i>						(*) Attention, the PA contents are only estimates , based on data from the literature or analytical results collected by iteipmai (**) If the mention "no data" is indicated in the "mini" columns, it means that only one value was found in the literature									
SELECT YOUR WEED(S) FROM THE DROP-DOWN MENUS BELOW - ONE LINE PER WEED	One PLANT weight (g DM) (optional) If not filled in, calculations are made with a default value	Total surface of the field (ha)	Expected return of the culture (kg DM per ha)	Number of plant weed observed	if restricted area (ha)	PA CONTENT (*) ON THE WHOLE FIELD				PA CONTENT (*) ON THE RESTRICTED AREA				MAIN PA	OTHER PA CITED IN THE LITERATURE
						in ppm (= g/1000g = µg/g)		in ppb (= ng/g)		in ppm (= g/1000g = µg/g)		in ppb (= ng/g)			
						mini **	maxi	mini **	maxi	mini **	maxi	mini **	maxi		

Iteipmai's PA calculator

1- visual evaluation of weeds in the field



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1- visual evaluation of weeds in the field



Fill cells D7 (up to D11)

"Total surface of the field (ha)"

Fill cells E7 (up to E11)

"Expected return of the culture
(kg DM per ha)"

Identification of weeds

Fill cells B7 (up to B11)

Count the nb of each identified weed

Weed only on a **limited** area

Fill cells G7 (up to G11)

Iteipmai's PA calculator

Butterbur / Petasites officinalis / partie aérienne /
coltsfoot / Tussilago farfara /
Comfrey / Symphytum officinale / plante entière /
Common Groundsel / Senecio vulgaris / plante entière /
common heliotrope / Heliotropium europaeum /
common heliotrope / Heliotropium europaeum s
Common viper's bugloss / Echium vulgare / parti
Eastern groundsel / Senecio vernalis /

1 - COLUMNS TO COMPLETE					
Select your weed(s) in column B, then complete columns C to G for the chosen weed(s) - 1 line per weed					
1ha = 10 000m ² = 100m x 100m, 1are = 0,01ha = 100m ² = 10m x 10m - DM = Dry Weight					
SELECT YOUR WEED(S) FROM THE DROP-DOWN MENUS BELOW - ONE LINE PER WEED	One PLANT weight (g DM) (optional) If not filled in, calculations are made with a default value	Total surface of the field (ha) D7	Expected return of the culture (kg DM per ha) E7	Number of plant weed observed F7	if restricted area (ha) G7
Common Groundsel / Senecio vulgaris / plante entière / whole plant		2	800	20	,01

Choose the weeds
in the drop-down menu

Fill that cell in case of very big or very little sized weed
Senecio vulg > 35 cm or jacobaea < 15 cm

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Results : PA range - Interpretations

If all weeds are concentrated in the 0,01 ha area



	A	B	H	I	J	K	L	M	N	O	P	Q	R
1		1 - COLUMNS TO COMPLETE	2 - READING THE RESULTS										
2		Select your weed(s) in column B	(*) Attention, the <u>PA contents</u> are only estimates , based on data from the literature or analytical results collected by iteipmai (**) If the mention "no data" is indicated in the "mini" columns, it means that only one value was found in the literature										
4		SELECT YOUR WEED(S) FROM THE DROP-DOWN MENUS BELOW - ONE LINE PER WEED	PA CONTENT (*) ON THE WHOLE FIELD				PA CONTENT (*) ON THE RESTRICTED AREA				MAIN PA	OTHER PA CITED IN THE LITERATURE	
5			in ppm (= g/1000g = µg/g)		in ppb (= ng/g)		in ppm (= g/1000g = µg/g)		in ppb (= ng/g)				
6			mini **	maxi	mini **	maxi	mini **	maxi	mini **	maxi			
7		Common Groundsel / Senecio vulgaris/plante entière / whole plant	0,4	0,8	393	834	79	167	78600	166800	senecionine, seneciphylline	senecionine/seneciphylline/retrorsine/riddelliine senecionine, senecionine N-oxide/ integerrimine N-oxide/seneciphylline N-oxide/retrorsine N-oxide/spatioidine N-oxide/ two non-identified PAs	
8													

PA range (ppb & ppm) if weed are distributed on all the field



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Some help for identification of PA Weeds

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LISTE ET DESCRIPTION DES PRINCIPALES PLANTES À ALCALOÏDES PYRROLIZIDINIQUES PLANTES DE FRANCE MÉTROPOLITAINE



Buglosse



Adénostyle

Retrouvez les principales Astéracées et Boraginacées à alcaloïdes pyrrolizidiniques, classées par ordre alphabétique de leurs noms latins. Et retrouvez pour chacune d'entre elle les informations suivantes : biotope, type de sol, période de floraison, répartition géographique, ainsi que quelques photos.



Bourrache

AU SOMMAIRE

- Introduction
- Liste des plantes
- Asteraceae
- Boraginaceae
- Références

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