

# AGRICULTURAL PESTICIDES FORMULATIONS TYPES IN BRAZIL

Marilda Tedesco<sup>1</sup>, Milene Martini Berbel<sup>2</sup>, Estela Bonilha<sup>2</sup>, Maria Fuentes Piedade<sup>3</sup>

<sup>1</sup> Coordenadoria de Defesa Agropecuária, São Paulo State Agriculture Office

<sup>2</sup> National Agricultural Laboratory (LANAGRO-SP); Ministry of Agriculture, Livestock and Food Supply (MAPA)

<sup>3</sup> Instituto Biológico, São Paulo State Agriculture Office

estela.bonilha@agricultura.gov.br/ milene.berbel@agricultura.gov.br/ marilda@cda.sp.gov.br

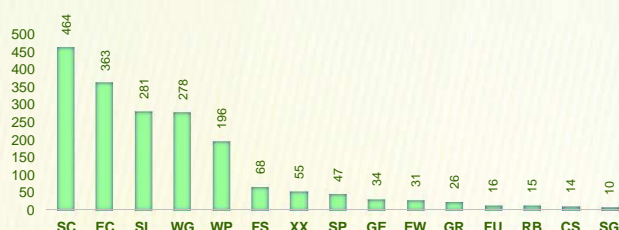
## INTRODUCTION

- ✓ Agriculture pesticides in Brazil are regulated by Brazilian legislation and standards.
- ✓ The pesticide agriculture products are registered in the Ministry of Agriculture, Livestock and Food Supply. The formulations codes and terms are defined and listed in Brazilian standards by ABNT, a National Standardization Forum. ABNT is responsible for elaborating Brazilian standards and is member of International Organization for Standardization (ISO). The ABNT standards are revised every 5 years or when necessary.
- ✓ The formulation terms and codes described in ABNT standards are based on the Manual on development and use of FAO and WHO specifications for pesticides.

## PESTICIDES FORMULATIONS CODES AND TYPES CURRENTLY REGISTERED IN BRAZIL

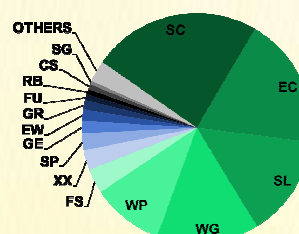
Code	Term	Code	Term
AL	Any other liquid	ME	Micro-emulsion
AP	Any other powder	OD	Oil dispersion
CB	Concentrate bait	OL	Oil miscible liquid
CS	Capsule suspension	PA	Paste
DC	Dispersible concentrate	RB	Bait (ready for use)
DP	Dustable powder	SC	Suspension concentrate
DS	Powder for dry treatment	SE	Suspension emulsion
EC	Emulsifiable concentrate	SG	Water soluble granule
EG	Emulsifiable granule	SL	Soluble concentrate
EO	Emulsion W/A	SO	Spreading oil
EW	Emulsion O/W	SP	Water soluble powder
FS	Flowable concentrate for seed treatment	TB	Tablet
FU	Smoke generator	TC	Technical material
GA	Gas	UL	Ultra-low volume liquid (ULV)
GE	Gas generating product	VP	Vapour releasing product
GL	Emulsifiable gel	WG	Water dispersible granules
GR	Granule	WP	Wettable powder
GW	Water soluble gel	WS	Water dispersible powder for slurry seed treatment
HN	Hot fogging concentrate	ZC	A mixed formulation of CS and SC
KN	Cold fogging concentrate	ZE	A mixed formulation of CS and SE
LA	Laca	ZW	A mixed formulation of CS and EW
LN	Long-lasting insecticidal net	XX	Others
LS	Solution for seed treatment		
ME	Micro-emulsion		

## PESTICIDES FORMULATIONS REGISTERED IN BRAZIL

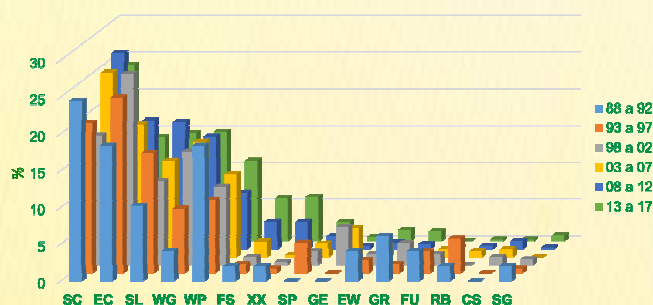


Total of 1957 registered products

## RATIO OF PESTICIDES FORMULATIONS REGISTERED IN BRAZIL (%)



## FORMULATIONS TYPES/ REGISTRATION YEAR



## PESTICIDES FORMULATIONS CODES AND TYPES NOT REGISTERED IN BRAZIL

Code	Term	Code	Term
AE	Aerosol dispenser	OF	Oil miscible flowable concentrate (oil miscible suspension)
BR	Briqueite	PR	Plant rodlet
CP	Contact powder	PS	Seed coated with a pesticide
DT	Tablet for direct application	SD	Suspension concentrate for direct application
EP	Emulsifiable powder	ST	Water soluble tablet
ES	Emulsion for seed treatment	SU	Ultra-low volume suspension (ULV)
GS	Grease	WT	Water dispersible tablet
MC	Mosquito coil		

## REFERENCES

<http://www.abnt.org.br>

[http://agrofit.agricultura.gov.br/agrofit\\_cons/principal\\_agrofit\\_cons](http://agrofit.agricultura.gov.br/agrofit_cons/principal_agrofit_cons)

<http://www.abnt.org.br/normalizacao/abnt-catalogo>

<http://www.fao.org/3/a-y4353e.pdf>