

UNIVERSIDADE ESTADUAL PAULISTA "JÚLIO DE MESQUITA FILHO" Campus de Botucatu

Faculdade de Ciências Agronômicas



BUDBURST OF GRAPE 'NIAGARA ROSADA' BY THE USE OF ERGER®



Luis Lessi dos Reis¹, Sarita Leonel², Simone Silva Hiraki³, Rodrigo Feletto⁴, Ronny Clayton Smarsi⁵, Vitor Hugo Artigiani Filho⁶

¹Agronomist, Professor in the Instituo Federal do Mato Grosso/ Câmpus Confresa, Brazil. e-mail: lessireis@yahoo.com.br.





There are many chemicals available in the market, but the hydrogen cyanamide, marketed as the name Dormex[®], is considered the product that provides the best results with respect to uniformity and development of shoot growth on grapevines. But the hydrogen cyanamide is considered an extremely toxic to humans and can be phytotoxic to plant when bad managed and has no competitors in the market. Concerning to the need to have products with lower toxicity and damage to the environment, the development of new compounds that have these characteristics, coupled with efficiency in breaking dormancy, with induction and consequently uniformity of budding, is required. The aim of this study was to evaluate the combination of $Erger^{\mathbb{R}}$ and potassium nitrate likes inducers of budbreak dormancy in grapevines, in northwest region of São Paulo state, Brazil.





RESULTS

Table 1: F values and averages of the percentage of sprouting grape 'Niagara Rosada', submitted to different treatments to induce sprouting applied in formation pruning of branches. 2012¹.

Treataments	Budding (%)				Gro	Growth	
	7	14	21	28	35	$\mathbf{NF^4}$	CR ⁵

Figure 1: Accumulated monthly rainfall (mm) - (A), maximum temperature, minimum temperature (°C) and relative humidity (%) - (B), during the conduct of the experiment. UNESP / FCA. Botucatu-SP-2013.

T2

Т3

T4

T5

T6

T7

T8

Т9

T10

T11

Table 2: Description of the treatments with Erger[®] associated with potassium nitrate in Vitis labrusca cv. niagara rosada, in the northwestern region of São Paulo State, Brazil. UNESP / FCA. Botucatu-SP - 2013.

Treatments	Description	Concentration (%)
T1	Water- negative pattern	-

		DAAT ²				35 DAAT	
Sprouting inducers							
Water – Negative pattern	0,00	10,00	90,00	90,00	90,00	7,10	29,30 b
Dormex® (5%)	0,00	70,00	100,00	100,00	100,00	7,80	75,20 a
Erger $(10^{3} + NC^{3} + 3\%)$	0,00	60,00	100,00	100,00	100,00	8,10	46,80 ab
Erger® +NC (5% + 5%)	0,00	60,00	90,00	90,00	90,00	10,70	62,80 ab
Erger® + NC (5% + 7%)	0,00	30,00	100,00	100,00	100,00	8,70	51,90 ab
Erger® + NC (7% + 3%)	0,00	70,00	100,00	100,00	100,00	8,50	44,90 ab
Erger® +NC (7% + 5%)	0,00	60,00	90,00	90,00	90,00	7,30	47,00 ab
Erger® + NC (7% + 7%)	0,00	60,00	90,00	90,00	90,00	8,60	48,60 ab
Erger® + NC (10% + 3%)	0,00	70,00	100,00	100,00	100,00	9,90	52,60 ab
Erger® +NC (10% + 5%)	0,00	40,00	90,00	90,00	90,00	8,40	49,80 ab
Erger® + NC (10% + 7%)	0,00	50,00	80,00	80,00	80,00	6,50	68,10 a
DMS	0,000	64,320	37,080	37,080	37,080	5,480	36,070
	F Test						
Sprouting inducers - I	0,000 ^{ns}	2,036 ^{ns}	0,769 ^{ns}	0,769 ^{ns}	0,769 ^{ns}	1,140 ^{ns}	2,76*
CV (%)	0,000	9,72	18,360	18,360	18,360	30,270	31,880
Média Geral	0,000	52,720	93,630	93,630	93,630	8,390	52,450

-1 (leaps followed by different lefters in the column differ by Lukey test at 6% probability $213/3/1$ -
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Dormex [®] - positive pattern	5
Erger [®] + Calcium Nitrate	5 + 3
Erger [®] + Calcium Nitrate	5 + 5
Erger [®] + Calcium Nitrate	5 + 7
Erger [®] + Calcium Nitrate	7 + 3
Erger [®] +Calcium Nitrate	7 + 5
Erger [®] + Calcium Nitrate	7 + 7
Erger [®] + Calcium Nitrate	10 + 3
Erger [®] + Calcium Nitrate	10 + 5
Erger [®] + Calcium Nitrate	10 + 7



means followed by unletent letters in the column unlet by rukey test at 5 /0 probability. ZDAAT = Days after treatment application. 3NC = Calcium Nitrate. ns = not significant, * = significant at 5% probability by Tukey test; 4NF = Number of leaves; 5CR = length of the branch.



The use of Erger® adding to its mix Calcium Nitrate fertilizer has performance similar to hydrogen cyanamide, proving to be an efficient alternative for induction and uniformity of shooting and maintenance of quality characteristics of commercial clusters of vine

'Niagara Rosada'...