

BIOLOGIA DEL APROVECHAMIENTO DE LA BIOMASA RESIDUAL

**Instituto de Quimica
Facultad de Ciencias Exactas y Naturales
Universidad de Antioquia**

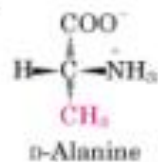
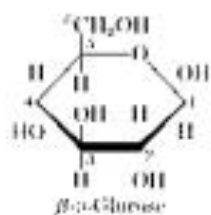
Materia Orgánica del Suelo

Morfológicamente
diferenciable

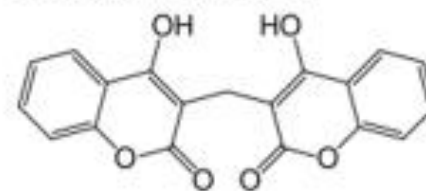
Morfológicamente no
diferenciable

Metabolitos

Natural
no metabólica

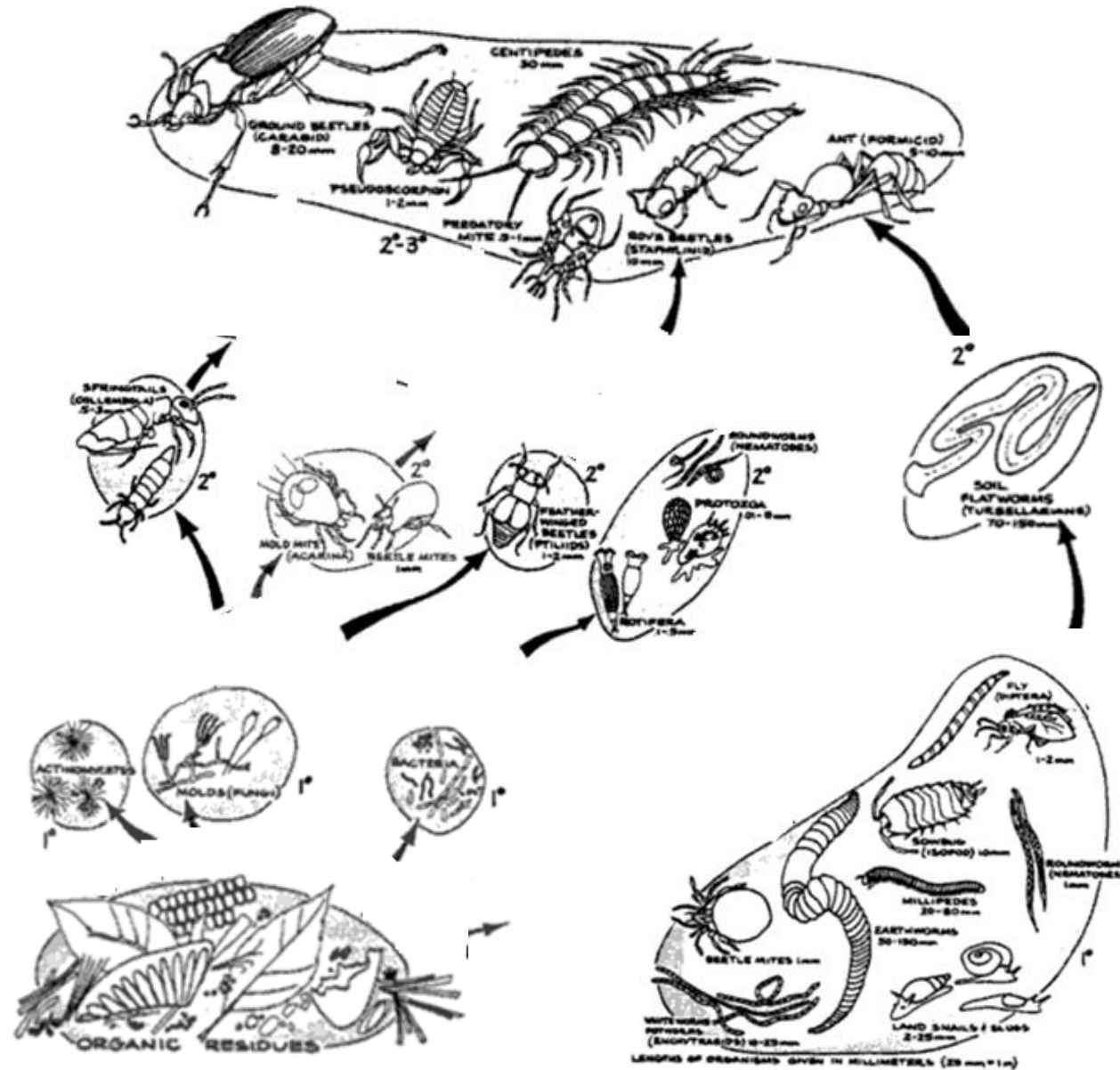


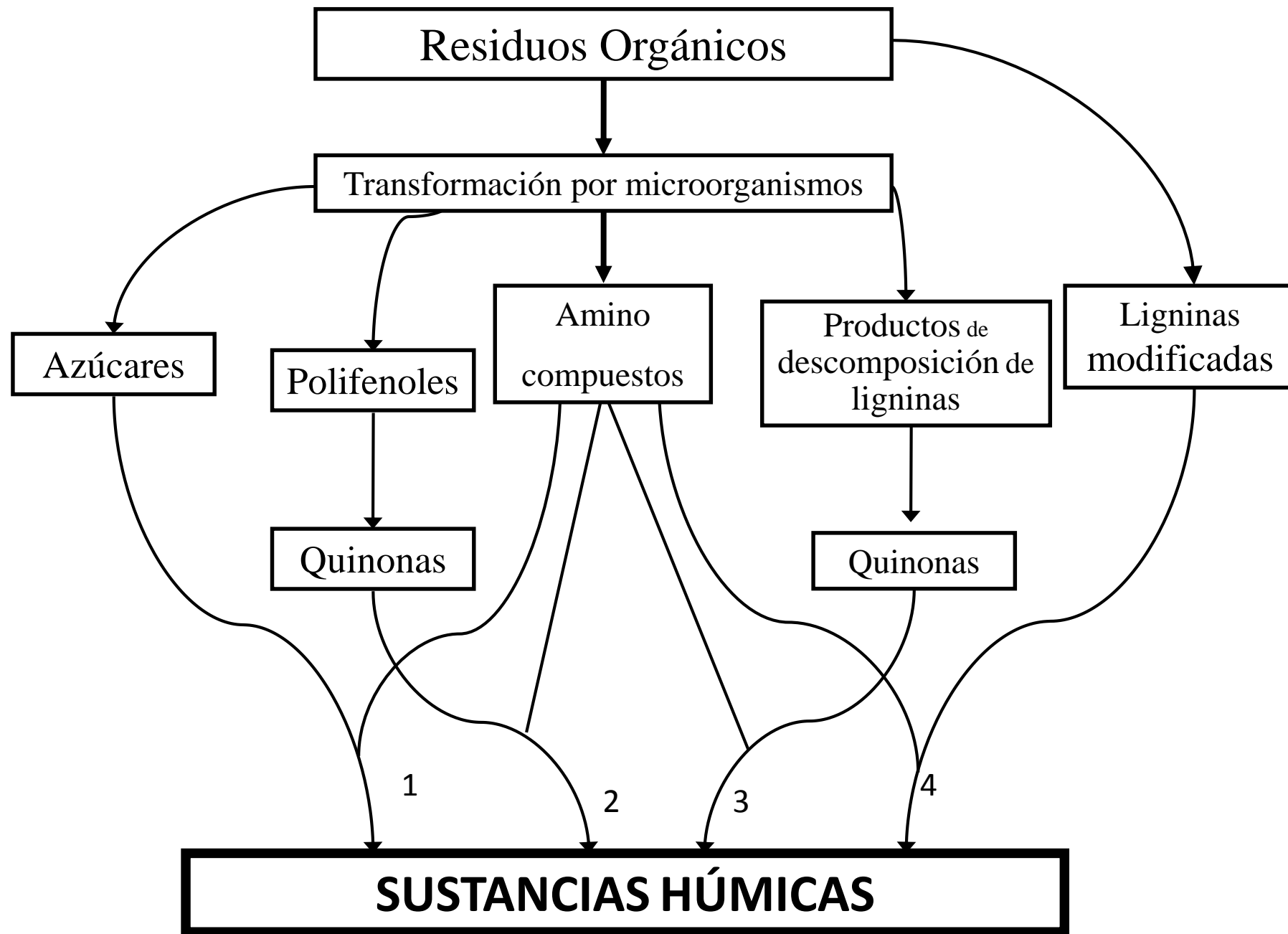
Cumarinas diméricas



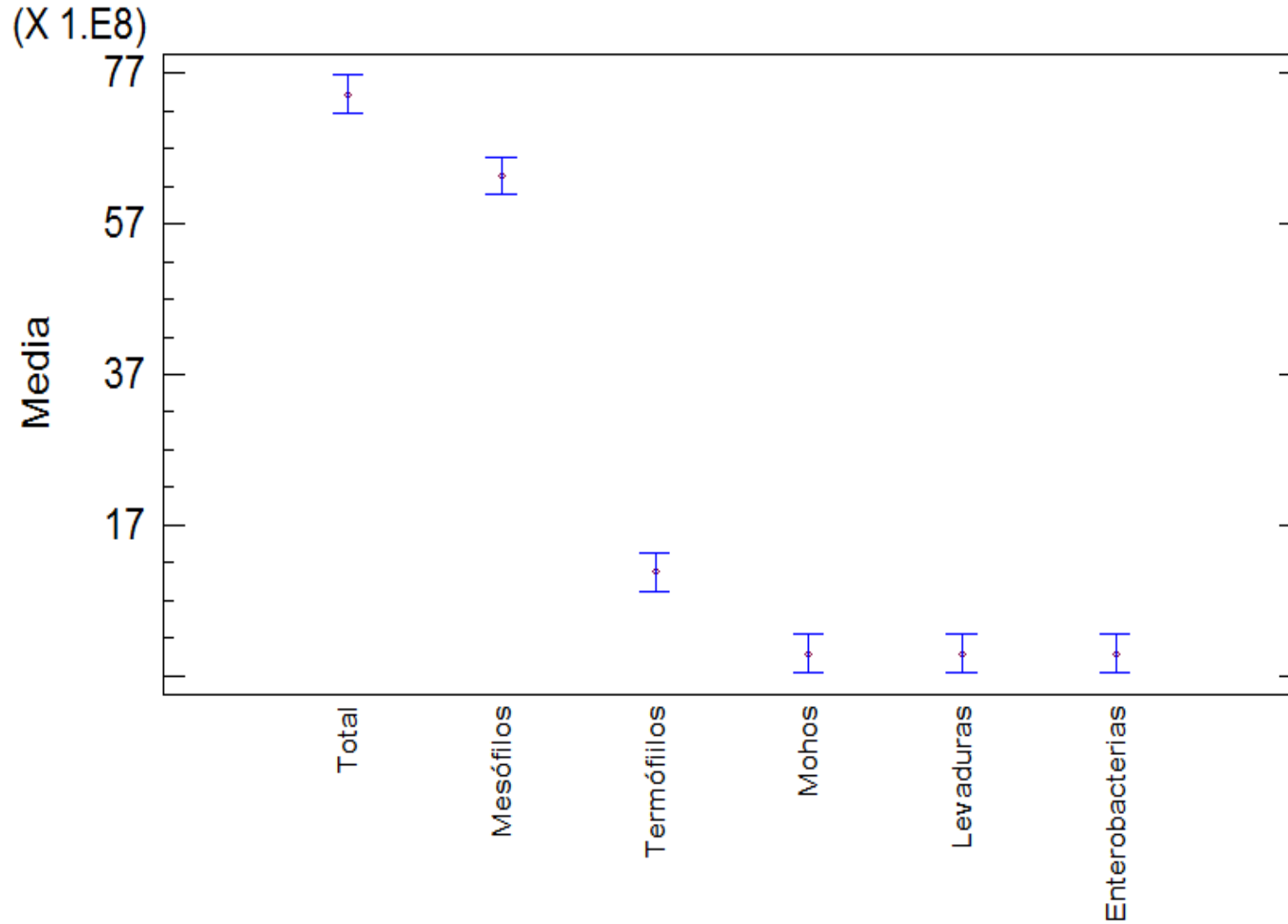
Dicumarol

¿Como se transforman la materia orgánica en el suelo?





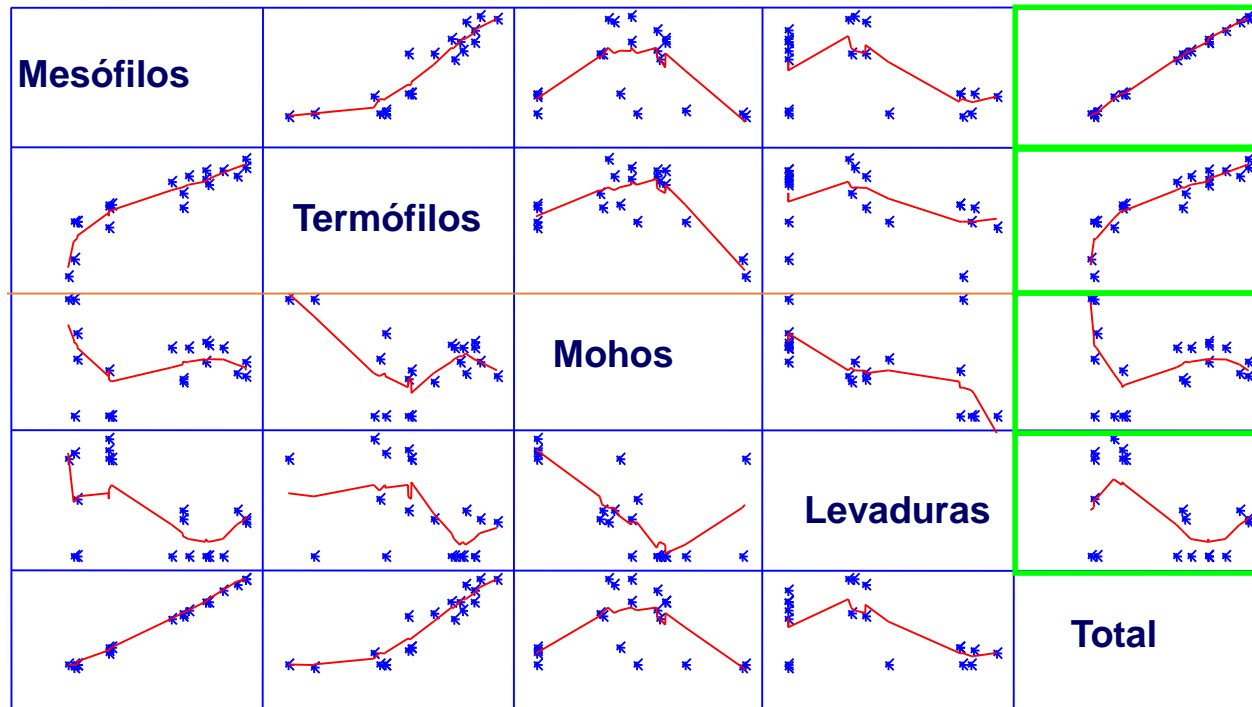
Comparación de poblaciones microbianas en el compost

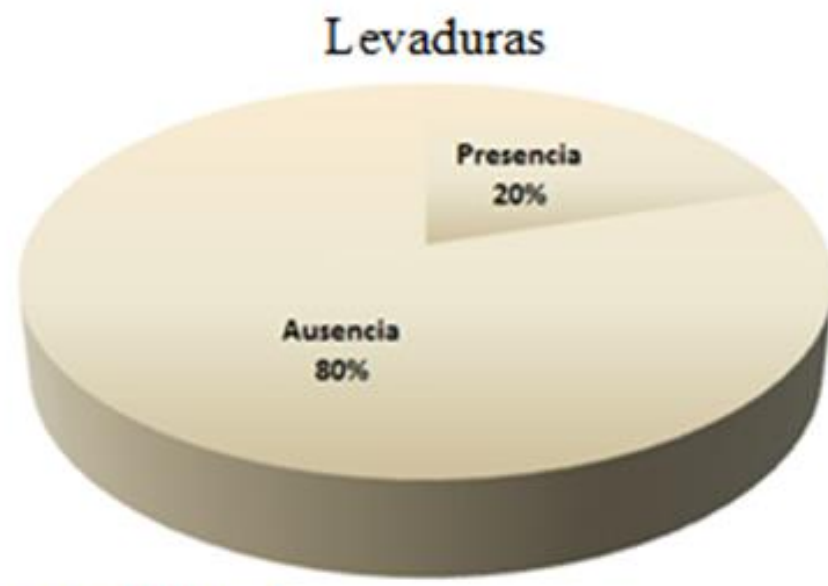
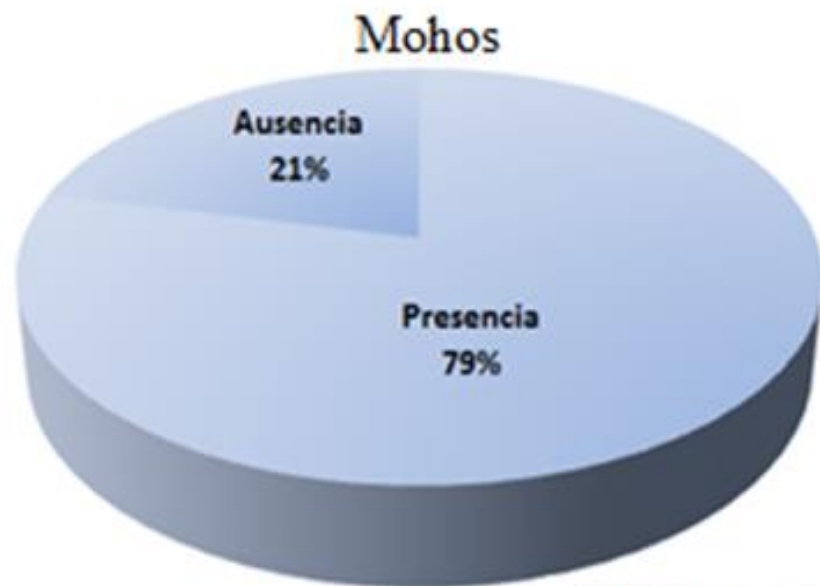


Microorganismos en compost comerciales preparados en condiciones de trópico húmedo

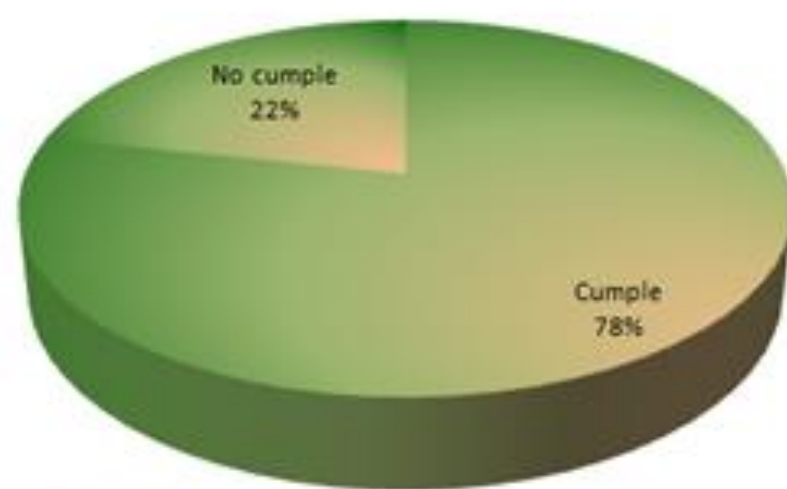
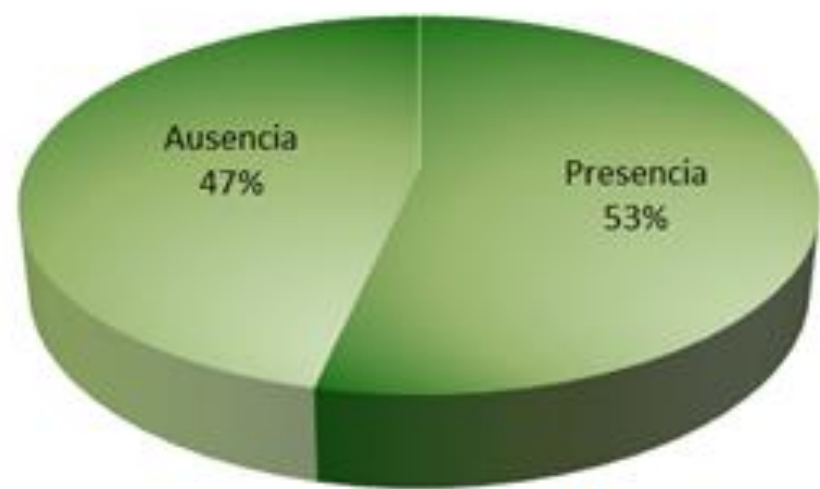
(n≈ 200)

	Media	Minimum	Maximum
Mesófilos	3.54E+11	2.00E+07	2.50E+12
Termófilos	8.63E+09	3.00E+06	6.50E+10
Mohos	2.18E+07	10	2.90E+08
Levaduras	9.74E+06	0	1.70E+08
TOTAL	3.66E+11	2.00E+07	2.50E+12

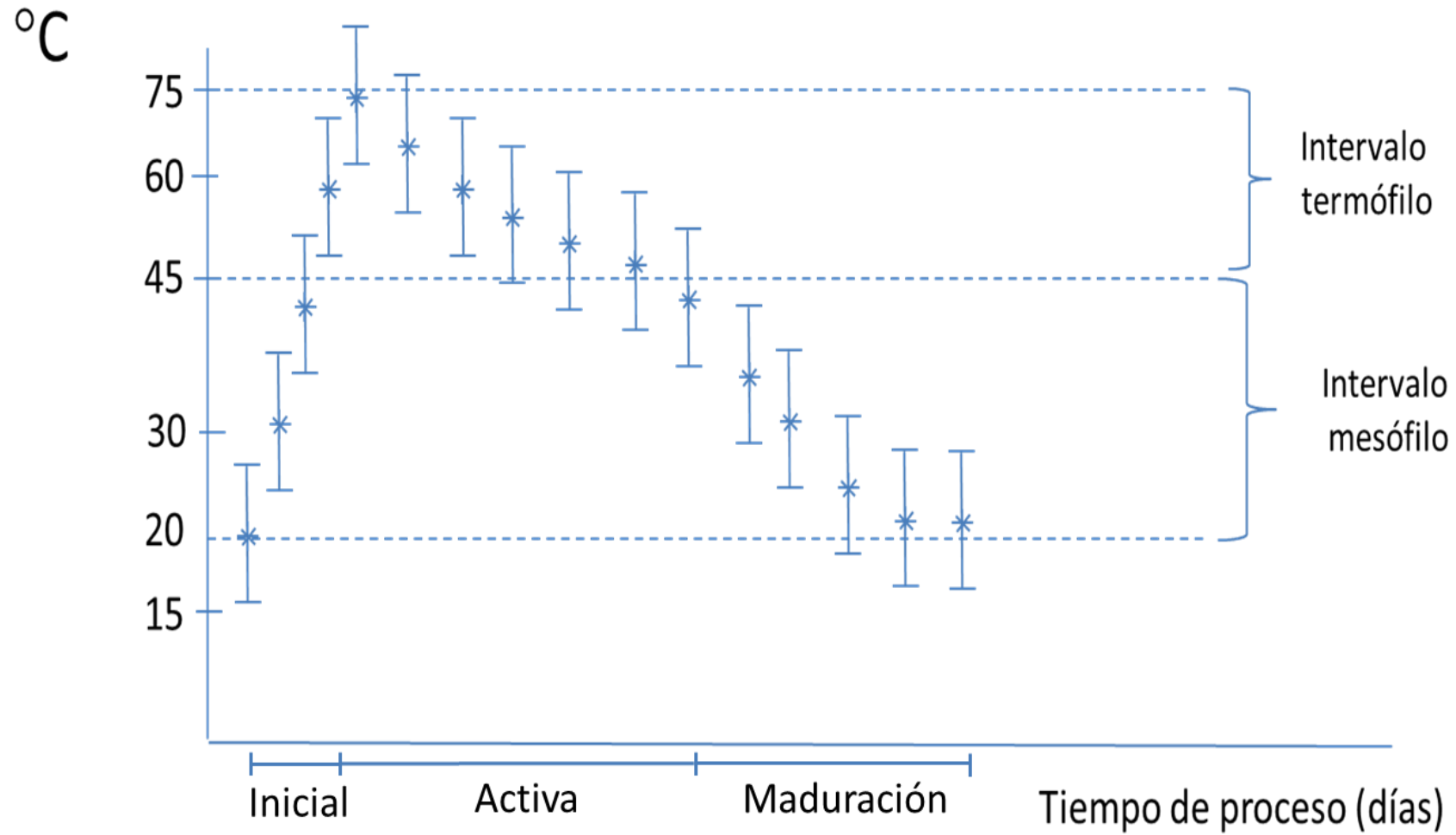


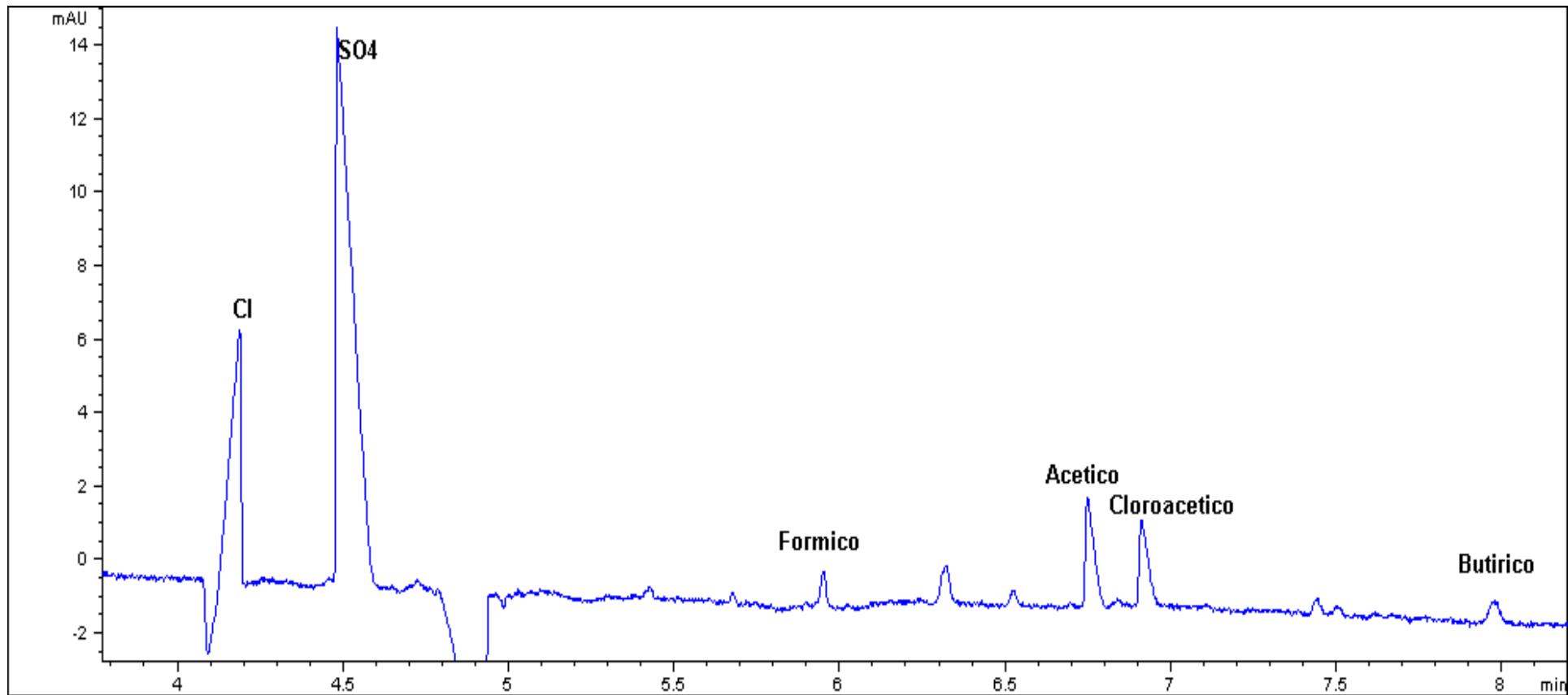


Mohos y Levaduras en compost

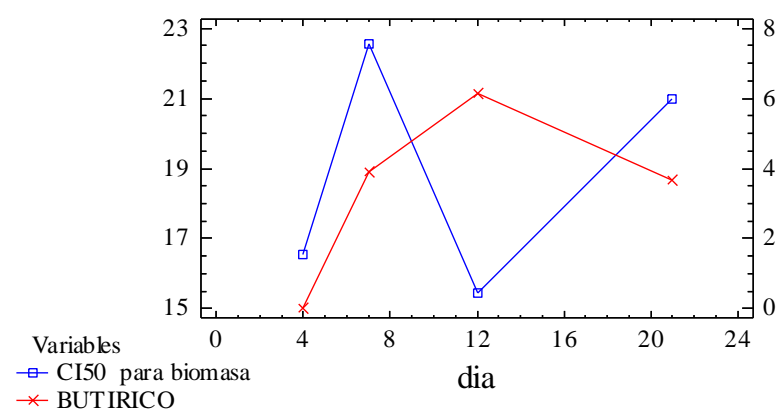
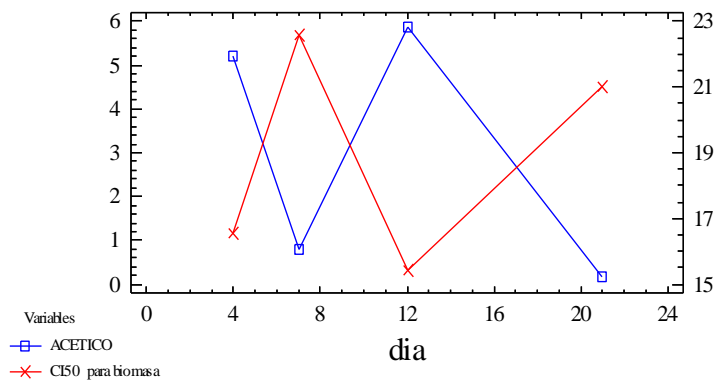
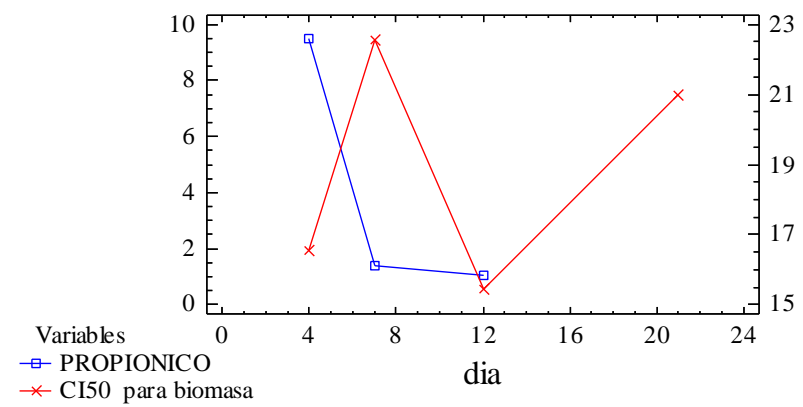
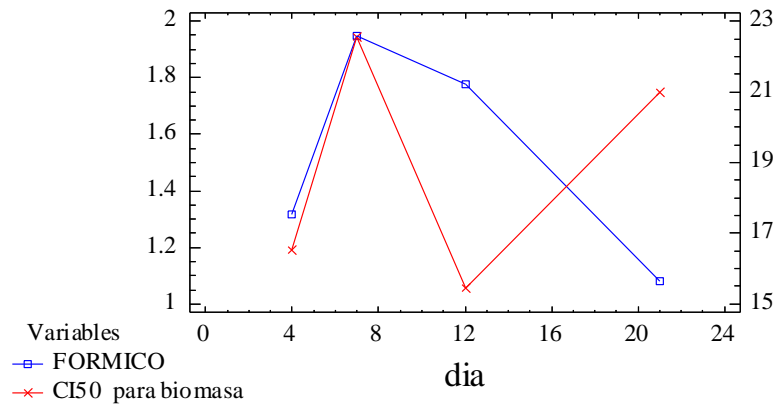
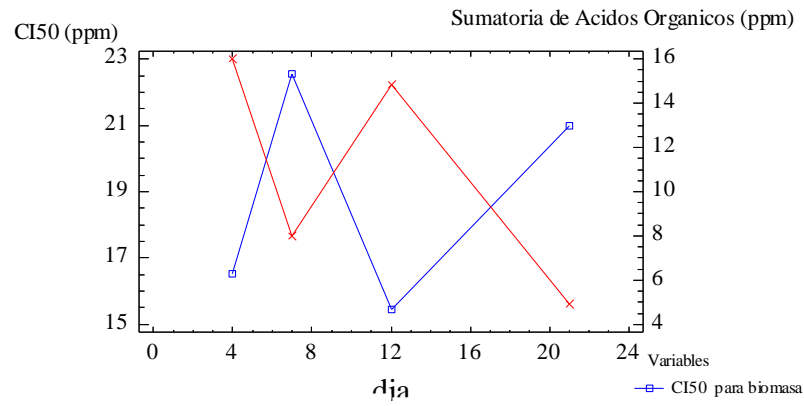


Enterobacterias en Compost

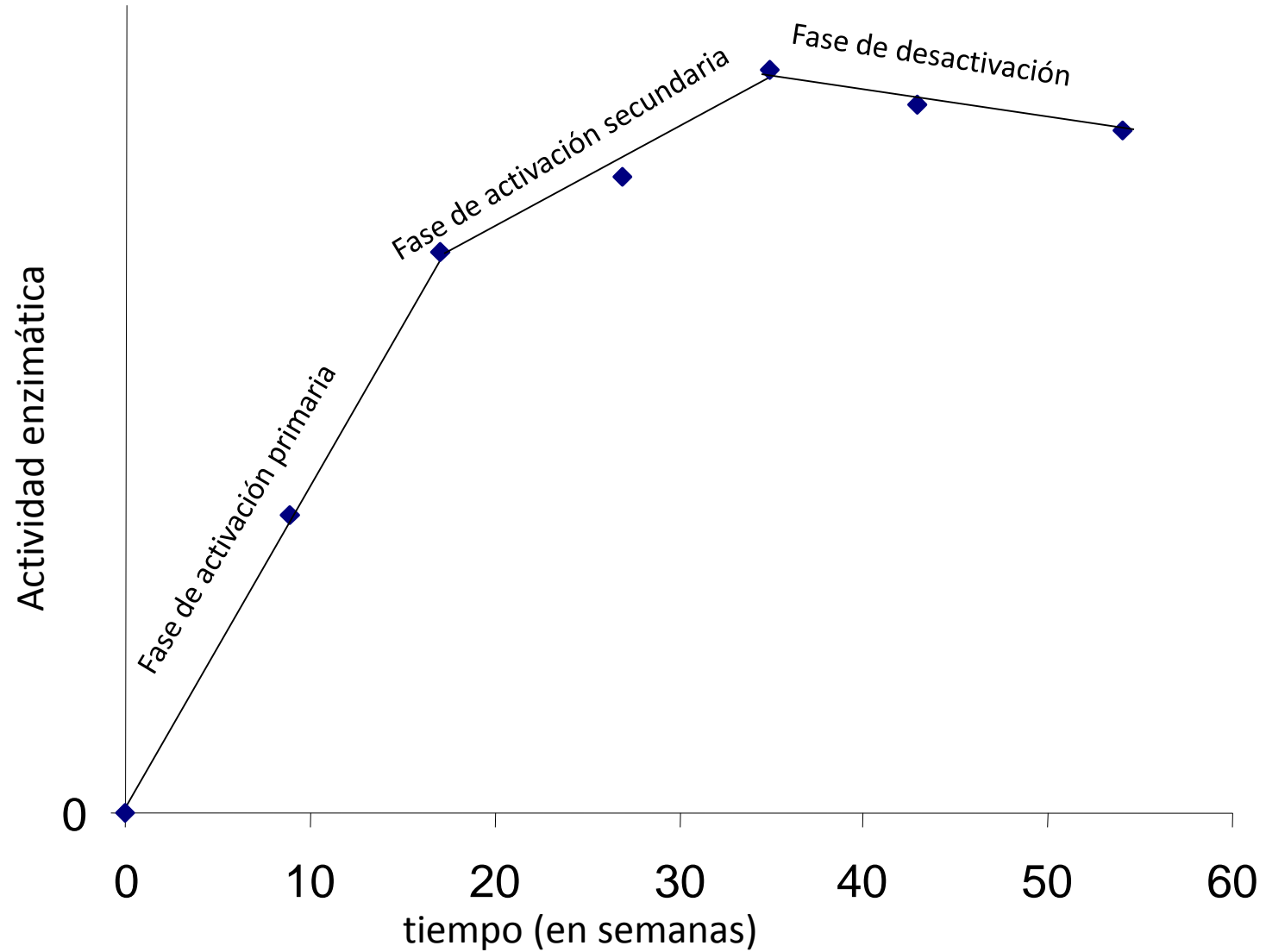




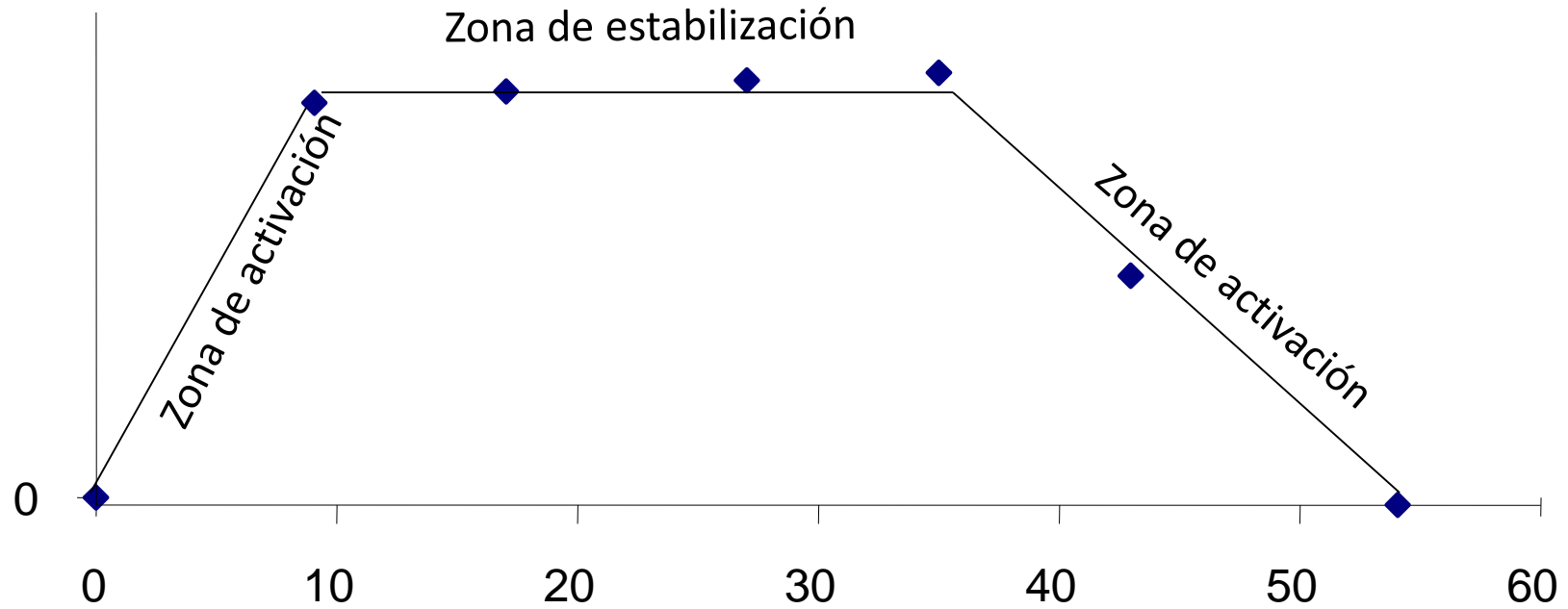
Electroferograma de muestra de compost de RSUsf. (Ftalato 16 mM, cromato 5 mM, CTAB 0.5 mM, TRIS 20 mM, pH 8.0, 25 °C, 25 kV, -20 kV.s, señal a 450 nm, referencia a 254 nm.)



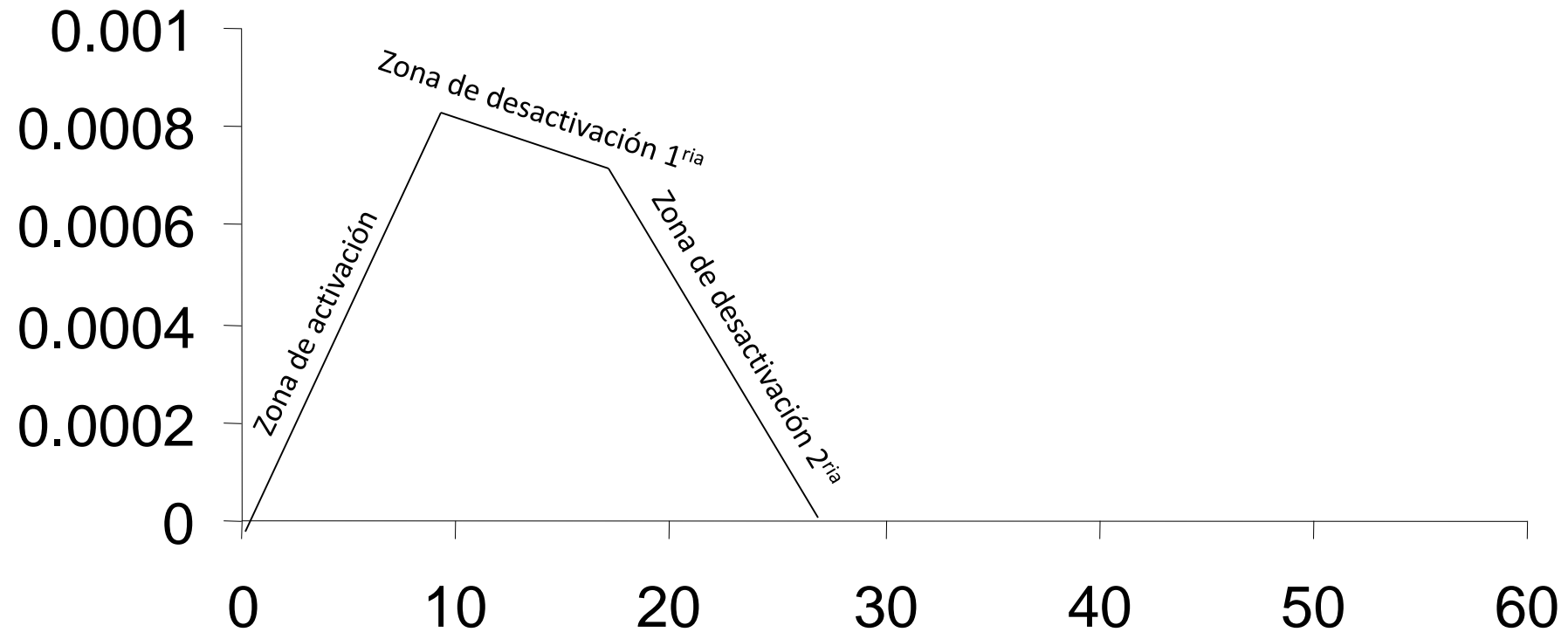
Actividad Fosfatasa en el reactor 1



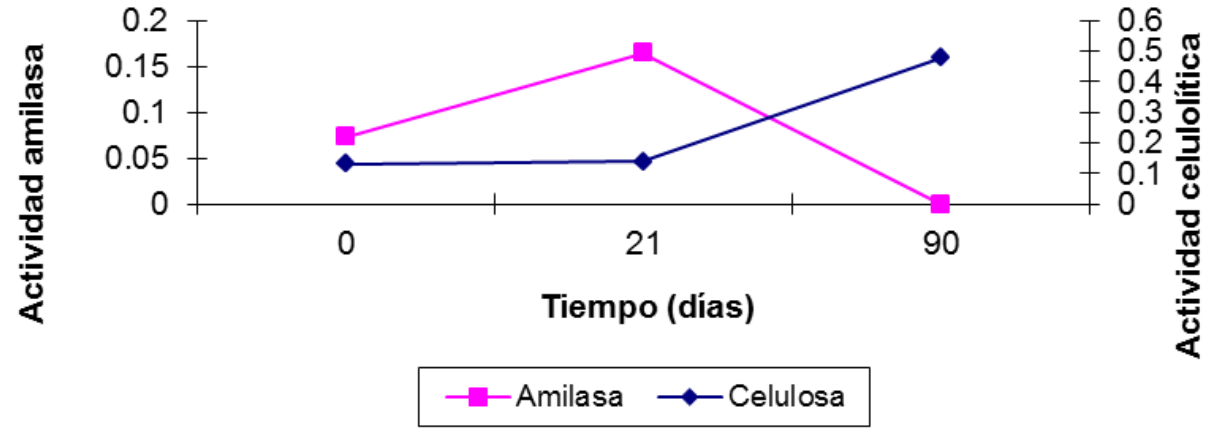
Actividad Fosfatasa en el reactor 5



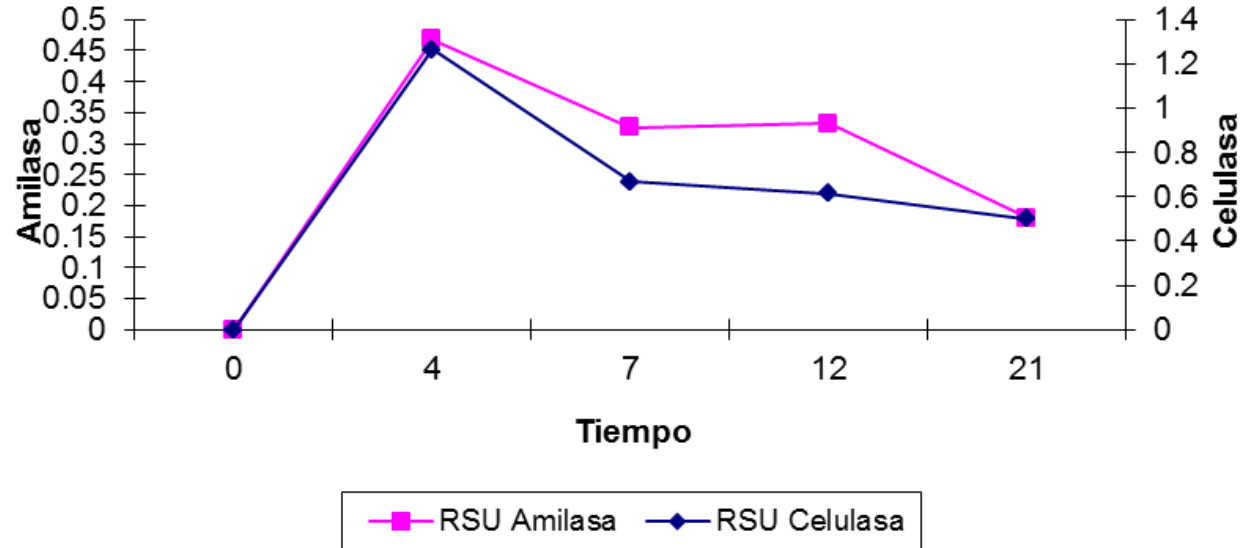
Actividad Celulasa en el reactor 3



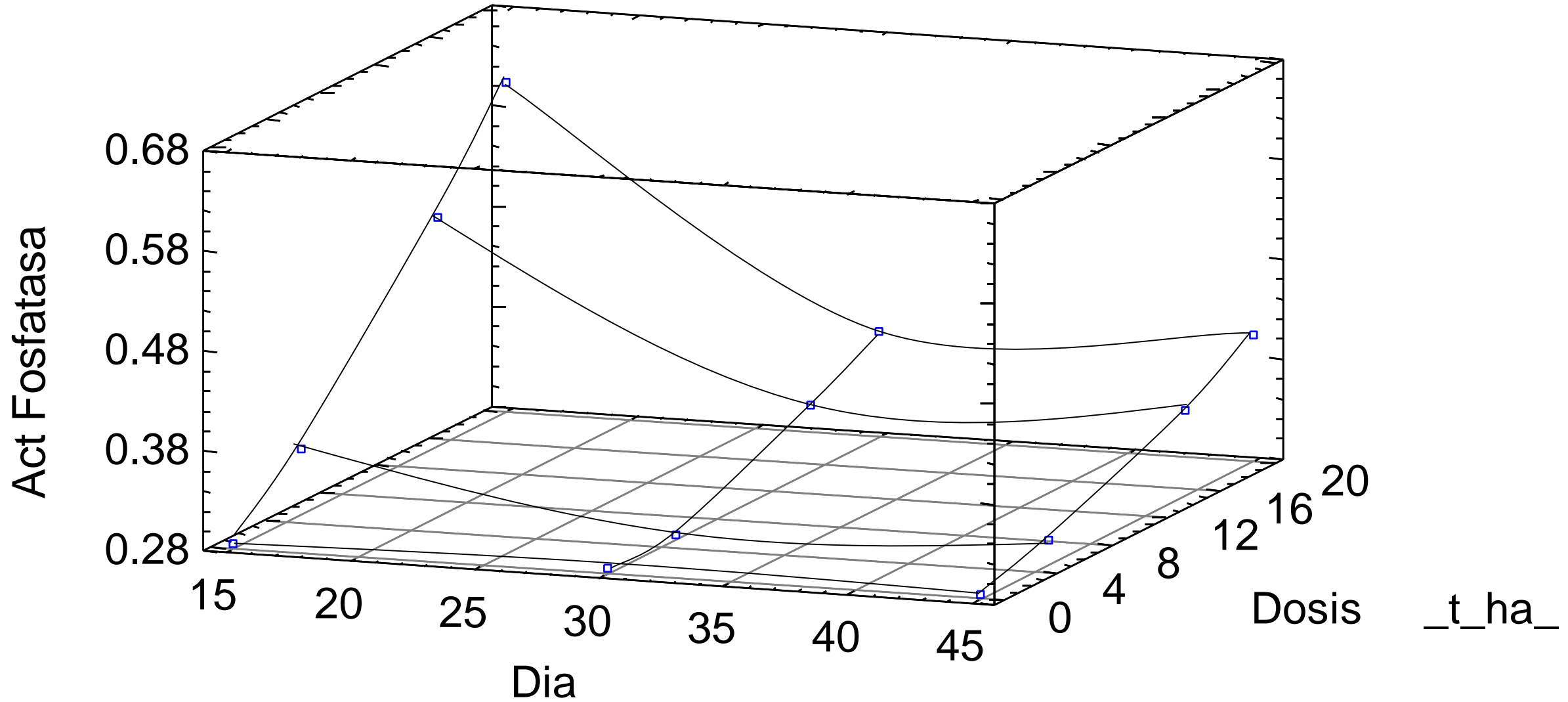
Comportamiento cinético de la expresión enzimática en el proceso de compostaje de Banano



Comportamiento cinético de enzimas hidrolíticas en el proceso de compostaje de RSU

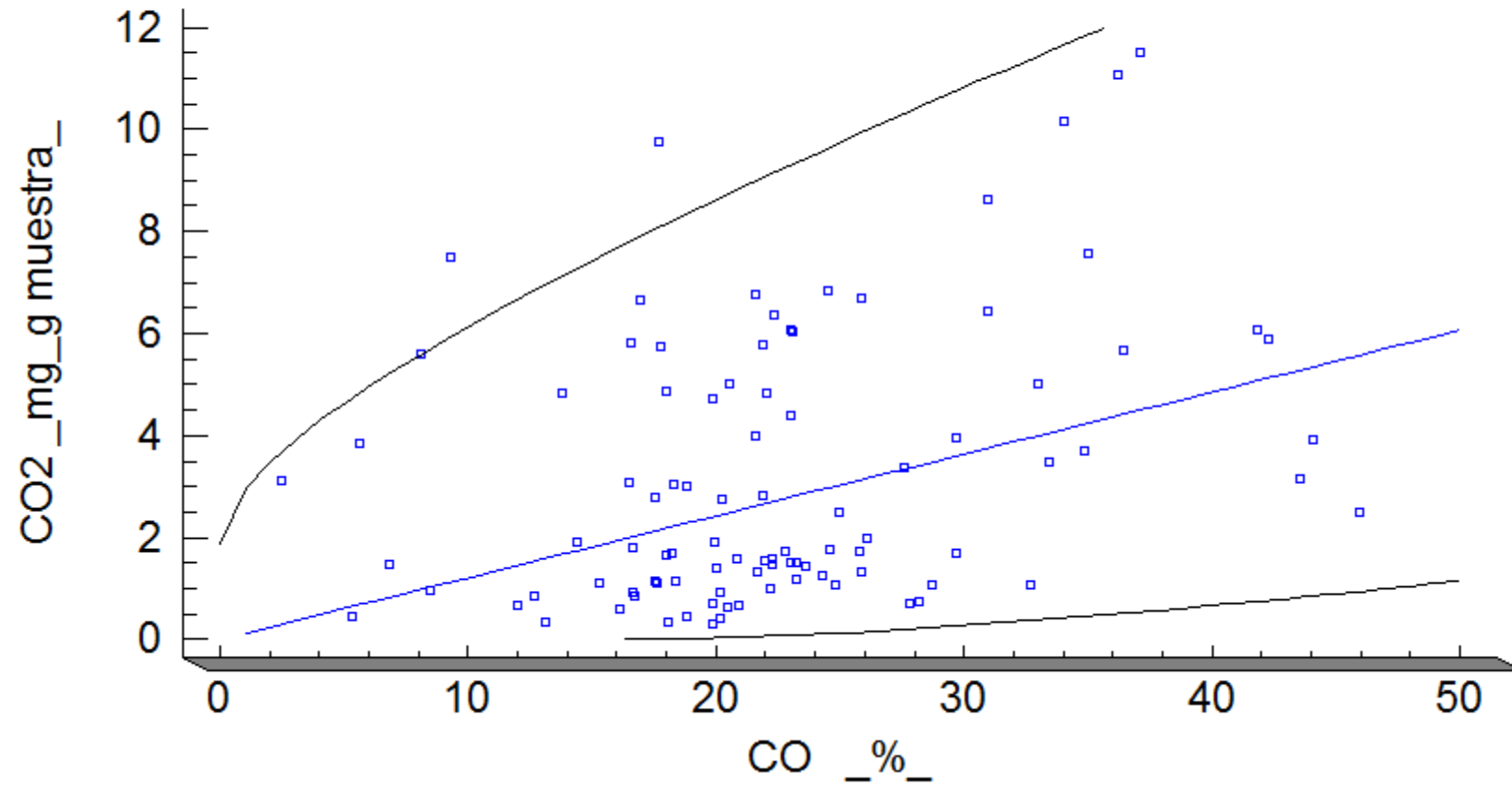


Plot of Act Fosfatasa vs Dia and Dosis _t_ha_



Plot of Fitted Model

$$\text{CO2_mg_g muestra_} = (0.348203 \cdot \sqrt{\text{CO_ \%_}})^2$$



$r = 0.93$

$P = 0.0001$