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(P<0.01)

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1. Lactation curve

2. Peak

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$$y_t = a t^b e^{-ct}$$

t

y_t
c b, a

(IGF)

b
c

a

5. Incomplete Gamma Function

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1. Flatter
 2. Persistency
 3. Bioeconomic
 4. Simulation

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(t) (t)

$y_t^{-1} = a + bt^{-1} + ct$ (.)

$Y_{max} = a (b/c)^b e^{-bt}$:

$S = -(b+1) \ln c$ (.)

$Y_t = a + be^{-0.05t} + ct$ (.)

$\ln(y_t) = \ln(a) + b \ln(t) - ct$ (.)

(EF) (PIF)

(MLF)

- | | |
|--|---|
| <ul style="list-style-type: none"> 4. Exponential Function 5. Mixed log Function | <ul style="list-style-type: none"> 1. Peak time 2. Peak yield 3. Polynomial inverse function |
|--|---|

$$Y_t = a + bt^{0.5} + c \ln(t) \quad ($$

c b a

(DF)

()

$$Y_t = a + b t - c t^2 \quad ($$

(SGF)

SGF

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$$Y_t = a - b t + c \ln(t) \quad ($$

RF

()

$$y_t = a + bt^{0.5} + ct \quad ($$

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$$R^2 = \text{SSM} / \text{SST}$$

SST

SSM

()

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1. Dave Function
 2. Singh & Gopal Function
 3. Regression Function
 4. Functions Fitting

a a

.(Ln(a)= /)

c b

... / (± /) / (± /) . () ()

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Proc GLM (SAS

$$y_{ijk} = HYS_i + NTD_j + \sum_{i=1}^4 b_i(x_i) + e_{ijk}$$

i NTD j k =y_{ijk}

HYS

i =HYS_i

=NTD_j

.() =x₁

=x₂

=x₃

=x₄

.()

=b₄ b₃ b₂ b₁

= e_{ijk}

a

1. Atypical

c b

c b

()
(t)

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b/c ()
t (b/c)

$$Y_{\max} = a (b/c)^b e^{-b}$$

$$S = -(b+1) \ln c$$

$$y = a \int_1^{305} t^b \exp^{-ct} dt$$

1. downhill shaped
2. Concave
3. Convex

							(±)
IGF	PIF	EF	MLF	DF	SGF	RF	
/	/	/	/	/	/	/	a
(/)	(/)	(/)	(/)	(/)	(/)	(/)	
/	/	/	/	/	/	/	b
(/)	(/)	(/)	(/)	(/)	(/)	(/)	
/	/	/	/	/	/	/	c
(/)	(/)	(/)	(/)	(/)	(/)	(/)	
/	/	/	/	/	/	/	R ²
(/)	(/)	(/)	(/)	(/)	(/)	(/)	
$Y_t = a + be^{-0.05t} + ct$		$Y_T^{-1} = a + bt^{-1} + ct$		$\ln(y_t) = \ln(a) + b \ln(t) - ct$			
$Y_t = a - bt + c \ln(t)$		$Y_t = a + bt^{0.5} + c \ln(t)$		$Y_t = a + bt^{0.5} + c \ln(t)$			
		$Y_t = a + bt^{0.5} + ct$					

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(x)

(x)

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p<.05

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p<.01

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b

a

=

(b/c)

c

$$y = a \int_1^{305} t^b \exp^{-ct} dn \quad (S = -(b+1) \ln c) \quad (Y_{max} = a (b/c)^b e^{-b})$$

$$\ln(y_t) = \ln(a) + b \ln(t) - ct$$

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/ (±

/ ±(/)

(Ln(a)) /

(b)

(a)

Exp /

Exp)

(c)

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p<.05

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p<.01

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SAS

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(P<.01)

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(P<.05)

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(ln(a))

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PROC GLM

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