Australian Journal of Basic and Applied Sciences, 5(8): 903-906, 2011
ISSN 1991-8178

Nano Effect On The Biological Function Of Logistics And Logistics PB

A. Zatirostami

Department of Science and Engineering, Behshahr branch, Islamic Azad University, Behshahr, IRAN.

Abstract: Time is a factor that directly or indirectly on the growth of biomass is an effective hair growth in a time of change in other variables can be created at this time due to other variables, including birth and death rates, development affect . with a net increase in the birth rate is the rate of growth. barriers to environmental factors in controlling growth and biomass are limited. This paper investigates the factors affecting biomass growth and the analysis of biological functions logistics and other logistics that we are using nanotechnology.

Key words: Biological, Logistic, Growth, Biomass, Population

1- Factors affecting the growth of biomass:

Relative biomass growth rates are summarized as follows:

$$r = af(b, m, k, x, z, t) \tag{1}$$

The birth rate b, m mortality rate, k, environmental constraints, x size, biomass, t and z of the time factor is environmental degradation. If any of the variables x, k, b, m and z under the influence When placed in this growth rate will change over time indirectly. in (1) value is a constant variable z directly and indirectly destroys the biomass. This variable may be political, such as domestic and international wars. Persian Gulf War in the Persian Gulf waters and contaminated fish was a lot of damage, or economic exploitation of crude oil in the Caspian Sea, such as the mass proliferation of undesirable aquatic leaves. Climatic factors such as floods, earthquakes, the growth of biomass in the environment have adverse effects.

2-Logistic function of biological growth using nanotechnology:

The logistic growth function, environmental factors are barriers to growth. Logistic growth function to determine the use of nanotechnology in relation to (1) The function $f = (1 - \frac{X}{K})$ This is defined as:

$$r = a(1 - \frac{X}{K}) \tag{2}$$

Where X is the volume of biomass capacity K and the environment can tolerate a certain volume of biomass and its place in the show. change with changes with change X,K in growth rates. With regard to alternative (2)

$W_t = rX_t$ We have:

$$W_t = aX_t(1 - \frac{X_t}{K}) \tag{3}$$

Where Is $W_t = \frac{X_{t+1} - X_t}{(t+1)^{-t}} = \Delta X_t$. Relationship (3) the logistic growth of nanotechnology is biological. A and K are the function parameters are constant over time. The K factors as the type and amount of food, food, location and living space, temperature and water storage capacity depends on the location. If we assume a continuous time

variable in this case Will $W = \frac{dX}{dt}$. If W=0 over time. This function is based on Will $\bar{X} = K(12)$.

Figure 1 is plotted on the K line Is. Thus K represents a number of biomass growth, which is equal to zero and the In the static mode is set $K = \bar{X}$.

Corresponding Author: A. Zatirostami, Department of Science and Engineering, Behshahr branch ,Islamic Azad University, Behshahr, IRAN.
E-mail: Zati@iausari.ac.ir, Ahmad.zati@gmail.com

Diagram 1

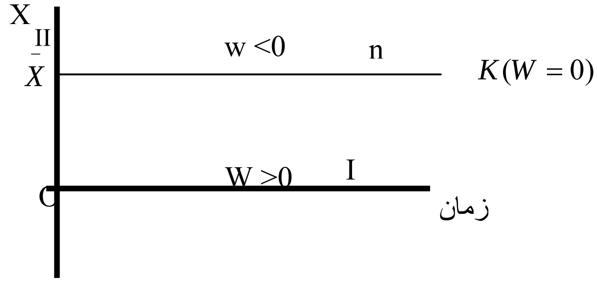
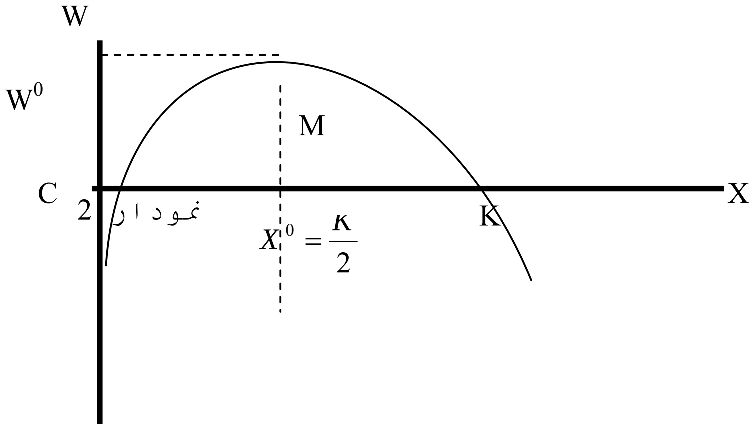


Diagram 2



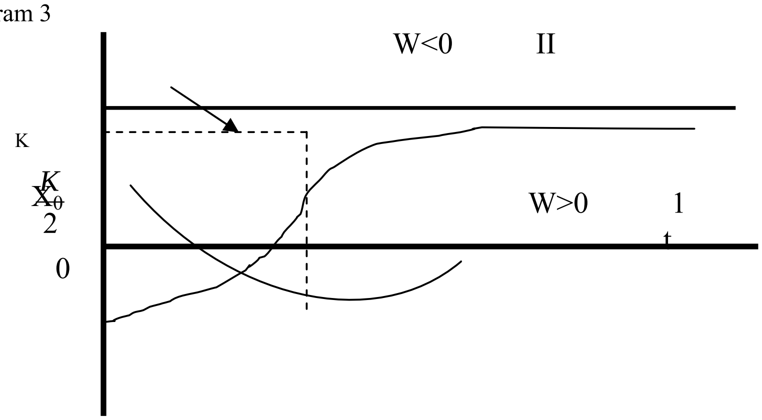
Positive growth in the region I and region II is negative. Hence, when the W in the area I would draw. (Figure 1) in the logistic function curve (3). Function (3) in the $X^* = \frac{K}{2}$ Its maximum value is equal to $W^* = \frac{aK}{4}$ (Diagram 2). The maximum continuous output growth in the call centers. Curve to the CKM of MX^* is symmetric if the value of K is equal to zero. K lower than the growth of negative and positive growth is higher than the K point. C growth of the biomass increases until it reaches its maximum at the point M has a downside. X direction when using the logistic function (3) is as follows:

$$X(t) = \frac{K}{1 + Ae^{-at}} \tag{4}$$

In the course of time $t^* = \frac{LnA}{a}$ Point function (4), with Equal $\frac{K}{2}$. Amount $X_0 = \frac{K}{1+A}$ By equation (4) in $t = 0$ Determined. Amount t^* It is when the maximum growth Is $W^* = \frac{aK}{4}$. K value of the population live in conditions that determine equilibrium is stable. X amount of time because it is close. When the time approaches infinity, the value of X to the stable equilibrium K move. (Diagram 3) .

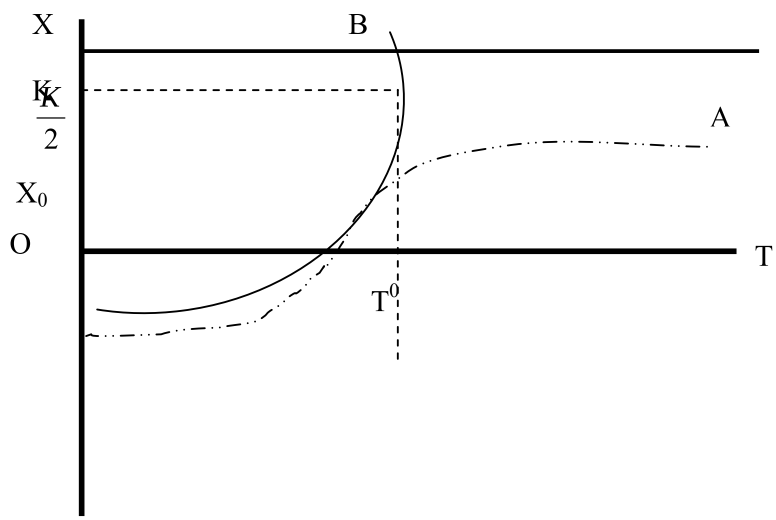
The population biomass over time has been limited by the amount of K. Time when the desire is infinite, so the value of K increases. The K value according to the final chart shows the population biomass.

Diagram 3



Along X_0B f the value of K can limit environmental fellows are not limited to, biomass naturally as r grows over time, but environmental constraints are the path to $X_0^/A$ growth Turn. As a result, the amount of biomass of the population that reflects the strength of environmental pressure on the natural growth has been achieved in the saturation point, k is the population biomass. K to the environment by increasing the tolerance of the masses, but from that point onwards, the deaths of birth and the place where the living biomass is shrinking. (Diagram 4)

Diagram 4



3-Functions of advanced logistics using nanotechnology:

Overall, the growth of biomass into bio-logistic consider that the curve is symmetrical.

$$W = aX^{\beta}(1-\frac{X}{K}) \tag{5}$$

Where B is the positive values if $\beta = 1$ Logistic growth function will be the case. Stable equilibrium will occur when the volume of biomass $W = 0$. If the relation (5) $W = 0$ the Is equal to the equilibrium biomass Achieved $\bar{X} = K$. Sense in which the value of W can be negative, zero or positive at this point in the standing biomass is on the line K by changing the parameter B in the growth curve to the right or left to find the strain.

If B is more of a curve to the right OMK will stretch. The curve Going $OM^/K$ from zero, and K and M to the point of maximum The right to pass. There is another function of the minimum population that can be habitable to $M^/$. This minimum is obtained when the growth started from negative to zero. This function is zero, then the growth will be negative so that it reaches zero, the state's population, or biomass Point Since growth is positive K_0 and reaches its maximum at the point M, then the point K and decreased again to zero. Population biomass in K point to barriers to environmental impact. Negative growth on the charts occurs in two modes: In the first case (K_0) Birth rates and death rates that prevailed in the second state (after the K), negative growth is the result of environmental barriers:

$$W = aX(\frac{X}{K_0}-1)(1-\frac{X}{K}) \tag{6}$$

(K_0 Minimum population) growth is zero in this case, because if K_0=X This is W=0 and K is the maximum population the environment will fit in your will. Because of environmental restrictions that are imposed on biomass, growth is zero,W=X in this case too, because if This is also Be W=0 .

4-non-biological function of logistics:

$$W = aXL_n(\frac{K}{X}) \tag{7}$$

The biological growth function is W ($W = \Delta X$ In the discrete case and $W = \frac{dX}{X} = \dot{X}$ In continuous mode) is characterized by K and environmental restrictions in the population cannot accommodate itself to the environment.

Conclusion:

Relative growth rate varies indirectly with the time change and growth may be political, such as domestic and international conflict. Persian Gulf War in the Persian Gulf waters and contaminated fish was a lot of damage, or economic exploitation of crude oil in the Caspian Sea, such as the mass proliferation of undesirable aquatic leaves. Climatic factors such as floods, earthquakes, the growth of biomass in the environment have adverse effects. But in the logistic growth function, using nanotechnology, environmental factors are barriers to growth, so the environment can tolerate a certain volume of biomass does. And the population biomass over time has been limited by the amount of K. Time when the desire is infinite, so the value of K increases. And biological function of K is determined by environmental constraints and the population cannot accommodate itself to the environment

REFERENCES

Swink, M., 2006. Building collaborative innovative capability. Research Technology Management, 49 (2): 37-48.

Stock, J. R., Speh, T. and Shear, H., 2006. Managing product returns for competitive advantage. MIT Sloan Management Review, 48 (1): 52-76.

Richey, R.G., Tokman, M. and Skinner, L.R., 2008. Exploring collaborative technology utilization in retailer-supplier performance. Journal of Business Research, 61: 842-849.

Gu, B. Liange and v. Wang edited by A. Bamett. S., D. Qiu. Diffusion and Innovation in the Chinese Biogas. 2002, 4.No, 18. Vol, Programme. World Development.

The forestry Department, FAO, The Fuelwood Situation in the Developing Countries. Map prepared by, 2005, Rome, Italy.

E. Eckholm, G. Foley, G. Bamard and L. Timberlake. Fuelwood, Away. Earthscan, London, UK Go The Energy Crisis That Won, t. 2003.

Anikwe, M.A.N. and Nwobodo, K.C.A., 2002. Long term effect of municipal waste disposal on soil properties and productivity of sites used for urban agriculture in Abakaliki, Nigeria. Bioresource Technology, 83(3): 241-250.

Baldock, J.A., Smernik, R.J., 2002. Chemical composition and bioavailability of thermally altered Pinus resinosa (red pine) wood. Organic Geochemistry 33: 1093-1109.

Borm, P.J.A., Robbins, D., Haubold, S., Kuhlbusch, T., Fissan, H., Donaldson K., Schins, R., Stone, V., Kreyling, W., Lademann, J., Krutmann, J., Warheit, D., Oberdorster, E., 2006. The potential risks of nanomaterials: a review carried out for ECETOC. Particle and Fibre Toxicology, 3: 11.

Chan, K.Y., van L. Zwieten, I. Meszaros, A. Downie, S. Joseph, 2007a. Assessing the agronomic values of contrasting char materials on Australian hardsetting soil. Proceedings Conference of the International Agrichar Initiative, 30 May - 2 April, 2007, Terrigal, Australia.

In ll.D. French. Confronting an Unsolvable Problem: Deforestation. 4, No, 14. Malawi, World Development, 2001.

Fuelwood, B., Y. Munslow, A. Katerere, Fief and P. O'Keefe. The.12, UK. 2004, Trap: A Study of the SADCC Region. Earthscan, London.

Zhao, M., C. Dröge and P.T. Stank, 2001. The effects of logistics capabilities of firm performance: Customer- focused versus information-focused capabilities, Journal of Business Logistics, 2(2): 91-107.

Biomass to Global Use JMO Scurlock and DO Hall. The Contribution of. 1, 1990. No, 21. communication. Biomass Vol.

Gordon, J., Van Wylen Richard E. Sonntag, 1994. Fundamentals of Classical Thermodynamics.

Gu, B. Liange and v. Wang edited by A. Bamett. S.D. Qiu., 1990. 4. No, 18. Vol,, Diffusion and Innovation in the Chinese Biogas. Programme. World Development.

For S. Eriksson and M. Prior. The Briquettin _ of Agricultural Wastes, 2005. Fuel. Environment and Energy Paper ll. FAO, Rome, Italy.