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We will investigate the following system of Logistic Difference Equations:

$$X_{n+1} = r_1 y_n (1 - y_n) \quad Y_{n+1} = r_2 x_n (1 - x_n)$$

where,  $0 < r_1, r_2 < 4$ ; in particular, the convergence nature, the periodic nature and the chaotic nature of solutions. In addition, we will discuss the origin of it in applications in agriculture. We will also illustrate some computer simulations. (Received September 21, 2010)