Matrix Model Solution

years 1 – 8

Projection Matrix			Population Vector		Population Vector in the next year							
					Year							
			Base year		1	2	3	4	5	6	7	8
0	0	0.6	50000	Calves	24000	22800	31020	34311	35122	37056	39846	42631
0.7	0.5	0	20000	Heifers	45000	39300	35610	39519	43777	46474	49176	52480
0	0.6	0.65	40000	Cows	38000	51700	57185	58536	61760	66410	71051	75689
				Total population	107000	113800	123815	132366	140659	149940	160073	170800
				Eigenvalue		1.063551402	1.088005272	1.069064734	1.062649372	1.06598363	1.067581409	1.06700996
				Growthrate		0.063551402	0.088005272	0.069064734	0.062649372	0.06598363	0.067581409	0.06700996
				Normed Eigenvector	0.224299065	0.200351494	0.250535072	0.25921260	0.249694451	0.247138544	0.24892463	0.24959398
					0.420560748	0.345342707	0.28760651	0.298557978	0.311229479	0.309949277	0.307209938	0.30726256
					0.355140187	0.4543058	0.461858418	0.44222942	0.43907607	0.442912179	0.443865431	0.44314347
					1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

years 9 – 21

9	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
45413	48412	51657	55116	58794	62718	66907	71376	76143	81227	86652	92439	98612
56082	59830	63803	68061	72612	77462	82634	88152	94039	100319	107019	114166	121790
80686	86095	91860	97991	104531	111512	118960	126904	135379	144420	154065	164353	175329
182181	194336	207320	221168	235937	251693	268501	286432	305561	325967	347736	370958	395731
1.06663393	1.06672306	1.066808071	1.066796196	1.066777623	1.066778639	1.066782574	1.06678267	1.066781861	1.066781778	1.066781939	1.066781969	1.066781938
0.06663393	0.06672306	0.066808071	0.066796196	0.066777623	0.066778639	0.066782574	0.06678267	0.066781861	0.066781778	0.066781939	0.066781969	0.066781938
0.24927585	0.24911208	0.249165353	0.249203504	0.249195422	0.249186872	0.249187883	0.249189737	0.249189671	0.249189282	0.249189265	0.249189344	0.249189354
0.30783482	0.30786857	0.307752397	0.30773633	0.30775919	0.307764309	0.307759963	0.307758561	0.307759354	0.307759707	0.30775957	0.307759486	0.307759508
0.44288933	0.44301935	0.44308225	0.443060167	0.443045388	0.443048819	0.443052154	0.443051702	0.443050975	0.443051012	0.443051166	0.44305117	0.443051138
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000