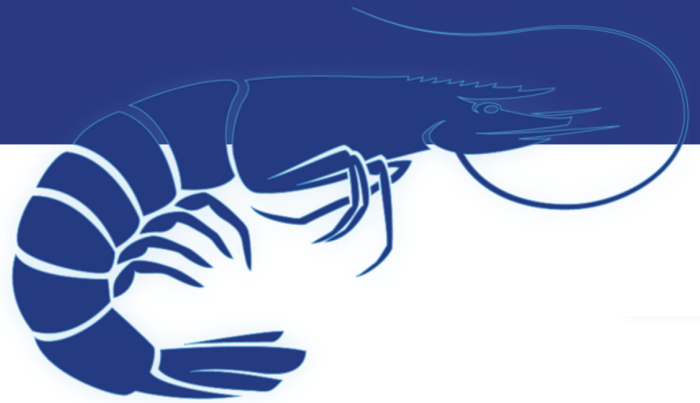
BLUE GENETICS
Caring for life

SPF RESISTANCE PRODUCTIVITY

BLUE GENETICS GOLDEN LINE



WHERE THERE IS RESISTANCE, THERE IS STRENGTH

TECHNICAL RECOMENDATIONS TO ACHIEVE THE BEST PERFORMANCE OF THE BLUE GENETICS GOLDEN LINE (RESISTANT LINE) in the GROW OUT FARMS

Blue Genetics Resistant Line, well known as the Golden Line, is a line with a very high resistance to diseases, high level of robustness and satisfactory growth and productivity rates under harsh conditions. The weekly growth can attain 1.5 to 2.0 grams (average daily growth from 0.21 to 0.28), giving growths after 100 days from 21 to 28 grams depending on the husbandry and the physicochemical conditions of each culture region, with an average survival rate of more than 90%.

It is a line designed to be stocked in high- or low-density ponds in a wide range of salinities and under a large range of environmental conditions even with high presence of diseases, that will express its maximum genetic potential with good management practices in hatcheries and farms, as well as with a consistent feeding throughout the farming period.

As this is a uniquely robust line, we want to provide our clients with the following recommendations, which together with their farming experience and technical skills, will help to achieve the best results in terms of growth, survival and Food Conversion Ratio.

These recommendations should only be used as a reference. For the most part good results will depend on the technical and observation experience of the staff and the characteristics of the facilities.

.

HANDLING ON FARM.

To obtain optimum performance of the Golden line on the farm, the recommended feeding should be based on the table below. It is advisable to spread the feeding over 2 or more servings per day.

It is recommended that the grow out environment remains within the following parameters: Salinity range of 0-35 ppm with optimum performance between 15-25 ppm, Temperature range 28-34 degrees Celsius with optimum performance between 30-32, PH of 7.2-8.5 with optimum performance between 7.5 and 8.0, Alkalinity range of 80-180 with optimum performance between 120-140.

Guide to feeding the Golden line

Grow-out		Feed	Grow-out		Feed	Grow-out		Feed	Grow-out		Feed	Grow-out		Feed
Weight in grams	Body weight %	Pellet size in mm	Weight in grams	Body weight %	Pellet size in mm	Weight in grams	Body weight %	Pellet size in mm	Weight in grams	Body weight %	Pellet size in mm	Weight in grams	Body weight %	Pellet size in mm
0.006	40.0	0.3-0.5	2.4	6.9	1.2	10.8	5.2	2.0	23.6	3.1	2.5-3.0	34.8	2.7	2.5-3.0
0.009	39.0	0.3-0.5	2.5	6.8	1.2	11.1	5.1	2.0	23.9	3.1	2.5-3.0	35.1	2.7	2.5-3.0
0.010	38.0	0.3-0.5	2.7	6.8	1.2	11.4	5.0	2.0	24.2	3.1	2.5-3.0	35.4	2.7	2.5-3.0
0.015	37.0	0.3-0.5	2.8	6.7	1.2	11.7	5.0	2.0	24.5	3.0	2.5-3.0	35.7	2.6	2.5-3.0
0.021	35.0	0.3-0.5	3.0	6.7	1.5	11.9	4.9	2.0	24.8	3.0	2.5-3.0	35.9	2.6	2.5-3.0
0.026	33.0	0.3-0.5	3.1	6.7	1.5	12.2	4.8	2.0	25.0	3.0	2.5-3.0	36.1	2.6	2.5-3.0
0.031	31.0	0.3-0.5	3.2	6.6	1.5	12.5	4.8	2.0	25.3	3.0	2.5-3.0	36.3	2.6	2.5-3.0
0.037	29.0	0.6-0.8	3.4	6.6	1.5	12.8	4.7	2.0	25.6	3.0	2.5-3.0	36.5	2.6	2.5-3.0
0.042	27.0	0.6-0.8	3.5	6.5	1.5	13.0	4.6	2.0	25.9	3.0	2.5-3.0	36.7	2.6	2.5-3.0
0.054	25.0	0.6-0.8	3.7	6.5	1.5	13.3	4.6	2.0	26.2	3.0	2.5-3.0	36.9	2.6	2.5-3.0
0.066	23.0	0.6-0.8	3.8	6.5	1.5	13.6	4.5	2.0	26.4	3.0	2.5-3.0	37.1	2.6	2.5-3.0
0.078	21.0	0.6-0.8	3.9	6.4	1.5	13.9	4.4	2.0	26.7	3.0	2.5-3.0	37.3	2.6	2.5-3.0
0.090	20.0	0.6-0.8	4.1	6.4	1.5	14.1	4.4	2.0	27.0	3.0	2.5-3.0	37.5	2.6	2.5-3.0
0.102	19.0	0.8-1.2	4.2	6.3	1.5	14.4	4.3	2.0	27.3	2.9	2.5-3.0	37.7	2.5	2.5-3.0
0.114	18.0	0.8-1.2	4.4	6.3	1.5	14.7	4.2	2.0	27.6	2.9	2.5-3.0	37.9	2.5	2.5-3.0
0.126	17.0	0.8-1.2	4.5	6.3	1.5	15.0	4.2	2.0	27.8	2.9	2.5-3.0	38.1	2.5	2.5-3.0
0.156	17.0	0.8-1.2	4.6	6.2	1.5	15.2	4.1	2.0-2.5	28.1	2.9	2.5-3.0	38.3	2.5	2.5-3.0
0.186	16.0	0.8-1.2	4.8	6.2	1.5	15.5	4.0	2.0-2.5	28.4	2.9	2.5-3.0	38.5	2.5	2.5-3.0
0.216	16.0	0.8-1.2	4.9	6.1	1.5	15.8	4.0	2.0-2.5	28.7	2.9	2.5-3.0	38.7	2.5	2.5-3.0
0.246	15.0	0.8-1.2	5.1	6.1	1.5	16.1	3.9	2.0-2.5	29.0	2.9	2.5-3.0	38.9	2.5	2.5-3.0
0.276	15.0	0.8-1.2	5.3	6.1	1.5-2.0	16.4	3.8	2.0-2.5	29.2	2.9	2.5-3.0	39.1	2.5	2.5-3.0
0.306	14.0	0.8-1.2	5.6	6.0	1.5-2.0	16.6	3.8	2.0-2.5	29.5	2.9	2.5-3.0	39.3	2.5	2.5-3.0
0.336	13.0	0.8-1.2	5.9	6.0	1.5-2.0	16.9	3.7	2.0-2.5	29.8	2.9	2.5-3.0	39.5	2.5	2.5-3.0
0.436	12.0	0.8-1.2	6.2	5.9	1.5-2.0	17.2	3.6	2.0-2.5	30.1	2.8	2.5-3.0	39.7	2.4	2.5-3.0
0.536	11.0	0.8-1.2	6.4	5.9	1.5-2.0	17.5	3.6	2.0-2.5	30.4	2.8	2.5-3.0	39.9	2.4	2.5-3.0
0.636	11.0	0.8-1.2	6.7	5.9	1.5-2.0	17.7	3.5	2.0-2.5	30.6	2.8	2.5-3.0	40.1	2.4	2.5-3.0
0.736	10.0	0.8-1.2	7.0	5.8	1.5-2.0	18.0	3.4	2.0-2.5	30.9	2.8	2.5-3.0	40.3	2.4	2.5-3.0
0.836	10.0	0.8-1.2	7.3	5.8	1.5-2.0	20.0	3.2	2.5-3.0	31.2	2.8	2.5-3.0	40.5	2.4	2.5-3.0
0.936	9.0	0.8-1.2	7.5	5.7	1.5-2.0	20.3	3.2	2.5-3.0	31.5	2.8	2.5-3.0	40.7	2.4	2.5-3.0
1.000	8.0	0.8-1.2	7.8	5.7	1.5-2.0	20.6	3.2	2.5-3.0	31.8	2.8	2.5-3.0	40.9	2.4	2.5-3.0
1.1	7.5	1.2	8.1	5.7	1.5-2.0	20.8	3.2	2.5-3.0	32.0	2.8	2.5-3.0	41.1	2.4	2.5-3.0
1.1	7.4	1.2	8.4	5.6	2.0	21.1	3.2	2.5-3.0	32.3	2.8	2.5-3.0	41.3	2.4	2.5-3.0
1.3	7.3	1.2	8.6	5.6	2.0	21.4	3.2	2.5-3.0	32.6	2.8	2.5-3.0	41.5	2.4	2.5-3.0
1.4	7.2	1.2	8.9	5.5	2.0	21.7	3.1	2.5-3.0	32.9	2.7	2.5-3.0	41.7	2.3	2.5-3.0
1.6	7.1	1.2	9.2	5.5	2.0	22.0	3.1	2.5-3.0	33.2	2.7	2.5-3.0	41.9	2.3	2.5-3.0
1.7	7.1	1.2	9.5	5.5	2.0	22.2	3.1	2.5-3.0	33.4	2.7	2.5-3.0	42.1	2.3	2.5-3.0
1.8	7.0	1.2	9.7	5.4	2.0	22.5	3.1	2.5-3.0	33.7	2.7	2.5-3.0	42.3	2.3	2.5-3.0
2.0	7.0	1.2	10.0	5.4	2.0	22.8	3.1	2.5-3.0	34.0	2.7	2.5-3.0	42.5	2.3	2.5-3.0
2.1	6.9	1.2	10.3	5.3	2.0	23.1	3.1	2.5-3.0	34.3	2.7	2.5-3.0	42.7	2.3	2.5-3.0
2.3	6.9	1.2	10.6	5.2	2.0	23.4	3.1	2.5-3.0	34.6	2.7	2.5-3.0	42.9	2.3	2.5-3.0

USE OF FEEDING TRAYS

To optimize the use of feed in shrimp production units, the use of controls is recommended to identify the correct consumption of the animal through the different phases of culture. The shape and dimensions of the control (feeding tray) may vary depending on the availability of materials for its construction, among the most recommended are square and circular trays, with dimensions of 50x50 cm and a height of at least 10 cm for the square ones, or 50 cm in diameter with 10 cm in height for the circular ones.

The number of controls or feeding trays depends on the dimensions of the pond to be operated, as well as the density based on stocking. There must be at least 4 trays per hectare for Asian models. The amount of feed that should be applied to each tray is related to the density; 100 grams are recommended for every 10 shrimp per meter. The feed for the tray should be placed just after supplying the corresponding feed to the pond. Tray monitoring should be done after at least 2 hours have elapsed. During the monitoring of the feed consumption in the tray, the following codes should be considered for the corresponding adjustment of the feed in the pond:

Codes for feed consumption in the feeding tray	
Assigned code	**% Feed in tray**
0	0
1	<12.5%
2	Between 12.5% to 40%
3	>40%

For the adjustment of the feed in the pond, the readings of the codes described in previous table must be considered. The adjustments must be calculated for every pond by adding the codes obtained from each monitoring tray, to be divided by the number of trays to obtain an average feed consumption code for the pond. For the adjustment of the feed, the average code must be valued in the next table, where the parameters of increase, balance and reduction of the feed are indicated.

Feed adjustment for accelerated growth		
Average codes	% Feed adjustment	Feed adjustment condition
0	*30%*	*Increase*
0.16	*22%*	*Increase*
0.33	*12%*	*Increase*
0.5	***Equilibrium 0***	***Unchanged***
0.66	*-5.00%*	*Decrease*
0.83	*-8.00%*	*Decrease*
1	*-10.00%*	*Decrease*
1.16	*-12.00%*	*Decrease*
1.33	*-13.00%*	*Decrease*
1.5	*-14.00%*	*Decrease*
1.66	*-15.00%*	*Decrease*
1.83	*-18.00%*	*Decrease*
2	*-20.00%*	*Decrease*
2.16	*-21.00%*	*Decrease*
2.33	*-23.00%*	*Decrease*
2.5	*-24.00%*	*Decrease*
2.66	*-25.00%*	*Decrease*
2.83	*-28.00%*	*Decrease*
3	*-30.00%*	*Decrease*