

# Dairy and hog farms

Small and medium size production units

**Sistema.bio®** is a patented and high quality anaerobic digestion technology that was designed to meet the specific needs of small and medium size dairy and hog farms, as well as farms with other species, for which installing industrial biodigesters is not an option. Using the waste from a wide range of animals at the farm, Sistema.bio® produces clean and renewable energy that can be adapted and used to produce thermal, mechanical or electric energy.

Sistema.bio® has been installed in dairy and hog farms across 15 countries in Latin America, the Caribbean, Africa and Asia. Our modular and compact systems are available in a wide variety of sizes and configurations to satisfy the needs of all small and medium size farms, improving their productivity, efficiency and reducing contamination through the reduction of greenhouse gas emissions and water contamination.

Sistema.bio® provides financing mechanisms, builds capacity and has a strong after-sales service program to ensure the successful implementation of anaerobic digestion projects. The biogas can displace a large portion of the high expenses in energy and fuels (LP gas, electricity and gasoline). It can be used as fuel to power motors and small pumps to transform dairy products, or as heating for maternity areas and piglets in hog farms. The organic fertilizer displaces chemical ones, improves the soil quality and increases the crops' yield. By providing wastewater treatment, medium-sized farmers do not risk fines for discharging waste in nature. These economic benefits, combined with an affordable price of the system provide a return on investment for the farmer of one to two years. With a lifespan of 20 years, Sistema.bio® is an excellent investment option for small and medium size farms.







## Hog farm- Jalisco Sistema 80

- Treatment capacity: 80 m<sup>3</sup>
- 300 hogs
- Organic fertilizer for corn field
- Biogas to heat the maternity area and piglets
- Reduction of organic charge in wastewater
- Time of Return on Investment: 2-3 years



## Dairy farm- Chiapas Sistema 40

- Treatment capacity: 80 m<sup>3</sup>
- 50 dairy cows
- Organic fertilizer for forage fields
- Biogas to power an electric generator of 5,500 watts
- Time of Return on Investment: 2 years

“ When we found out about Sistema.bio® we had this vision, we knew it was more profitable to equip our farm with biodigesters because the biogas would make us more productive and we would save the money we used to buy gas with. It was not a mistake!

Farmer- Rancho los Pinos  
Villa del Carbón, México



Model	Manure (L/day)	Number of cows (fully confined)	Biogas production			Biofertilizer production	
			Daily biogas production (m <sup>3</sup> /d) *	Daily average cooking time on one burner (h/day)**	Equivalent in LPG (kg/month)	(L/day)	(ha/year)
Sistema 6	45	2	1.7	3.3	21	135	4.9
Sistema 8	65	3	2.4	4.8	31	195	7.1
Sistema 12	90	5	3.3	6.7	43	270	9.9
Sistema 16	130	7	4.8	9.6	62	390	14.2
Sistema 20	180	9	6.7	13.3	86	540	19.7
Sistema 30	260	13	9.6	19.2	124	780	28.5
Sistema 40	350	18	12.9	25.9	166	1050	38.3
Sistema 80	700	35	25.9	51.8	333	2100	76.7
Sistema 120	1050	53	38.8	77.7	499	3150	115.0
Sistema 160	1400	70	51.8	103.5	665	4200	153.3
Sistema 200	1750	88	64.7	129.4	831	5250	191.6

Warm climate (>23° C)



### Dairy cows

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For more information visit [www.sistema.bio/about-biobolsa/](http://www.sistema.bio/about-biobolsa/)