

ROTARY BACKGROUND OF MECHANICAL COW

More than half of the children in South and Central America are malnourished, and some caregivers estimate that about 20 per cent are severely malnourished.

These "niños pobre" do not have access to Cow's milk, and even if it was affordable, many of the indigenous are lactose intolerant.

Nor do they receive any other daily source of high protein. As many know, children need this protein not only to grow their bodies, but importantly, to be able to learn. *No proteina, no aprenden!*

Many of these kids come to school at 7:30 in the morning without any breakfast, and they take classes for 5 hours without having anything to eat or drink.

Even then, many go home without being fed. They lack the natural child's energy, and their teachers report that many just drop their heads on their desks and go to sleep.

The Mechanical Cow is a soybean milk machine. It is manufactured by SSP Ltd. of India under licence from ProSoya Inc. of Ottawa, Canada. SSP's selling arm is Pristine Plants India (Pvt.) Limited. Rotarian Roy Dibyendu manages PPI.



The machine has the capacity of producing 30 liters of soy milk per hour, rich in protein and palatable. It can operate for 8 hours at a time before being cleaned. The left-over solids that are separated from the milk, called "okara", are used to make many soy products, such as tofu, tempeh, yogurt, bread, and cookies.

The "SoyaCow" will easily feed over 500 children daily, twice a day, and its durable construction of stainless steel allows it to operate for many years. There are two models - the VS-40 SoyaCow uses a Reimer's Electrical Boiler to produce the steam pressure that "cooks" the soy slurry at 115 degrees centigrade before separating it into milk and okara.

The VS-30 SoyaCow is the same as the VS-40 except that it has a tubular Boiler that can be heated with a gas fired appartatus.

A new and larger machine has just been developed by ProSoya in Ottawa. The ASC50 produces 50 litres per hour of soymilk base at about 8% solids or up to 75 L/H of soy

beverages at 2.5% protein in a tabletop batch configuration.

The soybean milk machine was designed in Canada by ProSoya and is used in many third world countries. This company holds a Canadian patent for its SoyaCows in that it uses airless grinding of the soybeans to make the soy milk palatable. PPI Ltd. has a website at www.ppi.co.in, and ProSoya Inc. has a website at www.prosoya.com, where information can be obtained about the different models of Soya Cows and the many advantages of soy milk.

An article on the Mechanical Cow was published in November, 2002 in "**THE ROTARIAN**", a magazine that all Rotarians in North America receive. Out of the many hundreds of Rotary Foundation projects in the year 2002, the Rotary Foundation chose just 3 to highlight in this magazine, and the Mechanical Cow was one of those three.

The Rotary Foundation has never refused a Matching Grant for a Mechanical Cow. More than two dozen SoyaCows have been approved over the last ten years and are currently operating under the oversight of the following Rotary Clubs feeding malnourished children in Ecuador, Brazil, Peru, Mexico, Guatemala, and Honduras:



RC of Ponta Pora, Brazil -
1 Cow
RC of San Miguel de Allende, Mexico - 1 Cow
RC of Lima, Peru - 1 Cow
RC of Quito, Ecuador - 2 Cows
RC of la Puntilla, Guayaquil, Ecuador - 8 Cows
RC of Cuenta, Ecuador - 1 Cow
RC of Tsáchila, Santo Domingo, Ecuador - 1 Cow
RC of Ambato, Ecuador - 1 Cow
RC of Guatemala Metropoli, Guatemala - 2 Cows
RC of Coatepeque-Columba, Guatemala - 2 Cows
RC of Retalhuleu, Guatemala - 1 Cow
RC of Puerto Barrios, Guatemala - 1 Cow
RC of Usula, San Pedro Sula, Honduras - 1 Cow
RC of Denpasar, Bali, Indonesia – 2 Cows (pending)

Four additional Cows are operating in Lima, Peru, funded and managed by the Rotary Club of Oshkosh Southwest, and the Rotary Club of Marin Evening in Southern California has placed four Cows with the approval of the Rotary Foundation.

In January, 2010 a matching grant application was approved by the Rotary Foundation to support two Cows in Northern Bali, Indonesia to feed malnourished children in 6 primary schools. The Cows are expected to be delivered in late Spring.

To keep current with the Mechanical Cow project, join **Facebook** and become a friend of "**Mechanical Cow**". Photographs of all of the Cows operating in six countries are posted there.



SD NEGERI NO 2 BANTIRAN SCHOOL NEAR PUPUAN, NORTH BALI, INDONESIA