**The Dark Side of Flowers**

**The Dark Side of Flowers**

By [Sarah Cox](http://www.zcommunications.org/zspace/sarahcox)

Friday, June 07, 2002

A traveller flying into the Colombian city of Bogotá from the southwest sees lush green fields give way to white patches the size of city blocks. It takes a few moments to realize that the incongruous scene below is not snow-dusted farmland but row upon row of greenhouses encased in chalky plastic. Underneath the plastic are flowers:”daisies, roses, carnations, chrysanthemums” cultivated for export to Canada, the United States, and Europe.

Colombia now exports more fresh flowers than any country except Holland. Flowers have been raised on the Bogotá savanna since the mid-1960s, but a phenomenal growth in the industry has occurred in the past decade. Every day, 747s and DC-8s take off from Bogotá’s airport with holds stuffed full of flower boxes. More than $45.5 million worth of Colombian flowers arrived in Canada in 1999, double the value of a decade ago, according to Statistics Canada. Virtually all the carnations sold in Canada are grown in Colombia; about half the roses sold here are also imported, with the majority coming from Colombia and neighboring Ecuador.

The beauty of these fragrant blooms belies their origins, for the story of the Colombian flower industry is a tale of environmental degradation and human exploitation. Flowers are a voracious crop: they consume more pesticides than any other agricultural product and gobble up savanna farmland once used to grow local dietary staples like potatoes. Their thirst for water is also prodigious; the once-ample water table below the plains fell so low after four decades of flower production that regional taps ran dry until a water pipe was extended from Bogotá in the late 90s.

Just as flower cultivation is harsh on the environment, so is it unsparing on the majority of the country’s estimated 75,000 workers employed at flower farms. Most, about 70 percent, are women who earn just (US) 58 cents an hour and work up to 60 hours a week, often without full overtime pay, before special occasions like Mother’s Day and Valentine’s Day. The workers, by many accounts, suffer from a myriad of health problems linked to exposure to pesticide cocktails that are applied up to several times a week to guarantee elegant, pest-free blossoms.

“Flowers are beautiful, but they are a health hazard,” says a youthful flower worker in the Colombian documentary *Love, Women and Flowers*. For every flower, there is a death.” The unidentified female worker does not mean a literal death, although there may be those as well. (There are no statistics on pesticide poisonings in the Colombian flower industry, but the World Health Organization and the United Nations Environment Program reported in 1990 in *Public Health Impact of Pesticides Used in Agriculture* that pesticides caused 20,000 deaths and poisoned 3 million people worldwide each year.) What the woman means is that death for flower workers takes more than one form: the documentary depicts the death of their youth, the death of dreams, the death of good health, and the death of hope. “They push you to the limit, but when they see that you’re ill, all they want to do is get rid of you,” says another flower picker, stacking bunches of flowers in rectangular brown boxes for transport.

Before her packing job, this brown-eyed woman tended the flower crop. One day, as she was bending over a gypsophila bed, her right eye started to burn. That night, she lost sight permanently in the eye. In her new job, half blind she works in a room cooled to keep the flowers fresh though she explains that she suffers from frequent colds, chronic bronchitis, and asthma attacks. Other young workers in the film recount a litany of health problems that coincided with the beginning of their work in greenhouses, where most Colombian flower production takes place: seizures, headaches, vomiting, weakness, dizziness, weight loss, and leukemia.

The documentary was made 15 years ago by Colombian filmmaker Marta Rodriguez and her husband, Jorge Silva. It circulated at international film festivals, won an award, then, lay half-forgotten in the archives of university libraries. Yet, it is still poignantly relevant, according to Laura Rangel, a 36-year-old Colombian lawyer who is trying to improve working conditions and environmental standards in Colombia’s US$510-million-a-year flower industry. Most of the country’s 500 flower farms use casual laborers who have no job security and are repeatedly forced to enter greenhouses only one or two hours after they have been sprayed, says Rangel, coordinator of international work for *Corporación Cactus*, a nonprofit group that helps Colombian flower workers. “There is an atmosphere of pressure that is reinforced,” fortunately, not on all the farms,” with contemptible or degrading treatment; for example, calling workers Indians or animals or threatening them constantly with firing, saying things like if you don’t like working here, the doors are open. In extreme cases, fumigation is done when workers are present.”

One notable change since the documentary’s release is the demise of the practice of feeding flower clippings laced with pesticides to dairy and beef cattle, according to a 1999 Cactus report, *Characteristics and Impacts of the Use and Management of Pesticides in Greenhouse Conditions in the Colombian Floriculture Industry.* The report, written by Jorge Enrique Sanchez Segura, a Cactus chemical engineer, points out that feeding cattle flower clippings has been prohibited, although it notes that “this still happens clandestinely in some areas.”

Rangel says most flower workers have a heavier workload and less job security than they did 15 years ago. Now, however, they can turn to *Cactus* for assistance. Founded in 1995 and funded by European nonprofit and religious groups such as Catholic Women of Austria and Oxfam Great Britain, *Cactus* provides legal advice for flower workers. Its six staff members also host a weekly radio program, organize workshops about health and safety issues like pesticide exposure, and set up information tents outside flower farms where labor disputes are taking place. Earlier this year, *Cactus* put up a tent at a farm called Wesmax E.U., where 250 of the 1,500 employees were fired after they went on strike for better working conditions. Even the local Roman Catholic diocese has become involved in the dispute. In an open letter last July to the international community, Bishop Luis Gabriel Romera singled out Wesmax as a source of labor “irregularities” and asked people to show solidarity with the flower workers, supporting their fair demands.

The name *Cactus* was chosen, Rangel explains, because the cactus plant symbolizes the similarities between the lives of flower workers and the environment in which they labor. “The cactus lives in the desert in harsh conditions, like those in which flower workers live. The cactus has thorns to protect itself, like those the workers make when they create knots of solidarity to confront their situation. The cactus flower also has beauty, and in the life of the workers, there is hope.” That’s why we say, “A rose without thorns lacks beauty; the cactus without its flower lacks hope.”

When I phoned Rangel at her Bogotá office, she asked me to e-mail my questions instead of visiting. Last year, telephone threats forced *Cactus* to move its headquarters to its current location. “Something bad is going to happen,” the first male voice said last April. The second caller, last July, announced that he was a member of the paramilitaries of Cundinamarca, a savanna province where many flower farms are located. “Keep fucking around with flower cultivation and you will pay,” he warned. *Cactus* subsequently lodged a complaint with the Colombian government, and the Ministry of the Interior took undisclosed steps to protect Rangel and other staff.

A recent Amnesty International report, *Colombia: Human Rights Under Attack*, points out that various Colombian paramilitary groups were responsible for killing 170 people in January 2001 alone. More than 35,000 people in Colombia have been killed during the past decade for political reasons, the report notes. In the year 2000, more than 4,000 people were victims of political killings in Colombia, with human-rights defenders, judicial officials, and trade unionists among the main groups targeted.

Flower farms have traditionally belonged to wealthy Colombians. The structure of ownership began to change in 1998, when Dole Food Company Inc. bought 23 flower farms in Colombia and neighboring Ecuador. Dole’s flower subsidiary, *Americaflor Ltda.,* is now the world’s largest grower of fresh flowers, employing 11,133 workers in Colombia and 1,028 in Ecuador, according to Rick Harrah, Dole’s Latin American president.

Dole trumpets its environmental and labor standards for flower farms: “Dole and its subsidiaries are champions of environmental quality and worker welfare,” Harrah told the U.S. Senate Finance Committee subcommittee on international trade in August 2001. Yet later on in Harrah’s speech, he underscored just how tenuous are any improvements in the Colombian flower industry. Harrah went on to say that Dole’s voluntary programs to improve the lives of workers will be scaled down or cut altogether if the U.S. Senate does not renew the Andean Trade Preferences Act, which allowed flowers to enter the U.S. duty-free for 10 years until it expired last December. “Health care, childcare, nursing care, subsidized-nutrition, and educational programs would all be reduced or eliminated, to say nothing of the environmental programs designed to protect and maintain fragile natural resources through better pesticide management and improved environmental protection,” he told the subcommittee. (U.S. president George Bush has said he wants the ATPA renewed, but American flower growers, worried about cheap imports from Colombia, are lobbying to reject the act. The extension of the ATPA, which has been approved by the U.S. House of Representatives, is stalled in the Senate.)

Dole, which earned US$4.8 billion in total revenues in 2000, has a controversial labor record worldwide. Most recently, the company has been criticized by *Human Rights Watch,* a New York, based international human-rights organization, for failing to use its financial influence to stop child labor on banana plantations in Ecuador. The April 2002 report by HRW, *Tainted Harvest: Child Labor and Obstacles to Organizing on Ecuador’s Banana Plantations,* singled out Dole as the major supplier operating in Ecuador. It pointed out that more than 70 percent of the children interviewed for the report alleged having worked on plantations that sold to Dole. Some children, who earn an average of US$3.50 for a 12-hour day, said they continued working while toxic fungicides were sprayed from airplanes. In response to the report, Harrah said that any company violating Dole’s policy of refusing to purchase knowingly from producers employing minors would be immediately terminated as a Dole supplier.

For political and security reasons, *Cactus* will not publicly discuss working conditions at individual farms unless, like Wesmax, they are involved in a labour dispute. Rangel says some flower farms treat employees well and are improving environmental practices, but many farms have such high quotas for planting or picking flowers that workers are forced to limit their meal and bathroom breaks. Other common practices cited by Rangel are: illegal pregnancy tests for new workers; refusing to renew the contracts of pregnant workers; the use of casual or subcontracted laborers who are dismissed after one to three months (even though new employees are hired to take their places); and the immediate firing of anyone suspected of trying to organize a union.

I ask Rangel if she is ever afraid for her life. She sends back a verse by Colombian writer Manuel Mejía Vallejo:

To be afraid is natural

says a tested man

But to live in fear

is the worst death of all.

The bouquet of flowers on my desk in Victoria is imbued with new meaning. Until now, the flowers were merely a birthday gift from my family. Flowers mark the rituals and passages of life like indelible footprints: I remember mauve alstroemeria for the birth of my daughter, orange lilies for the death of my father, and a fat pink rose on Valentine’s Day, resplendent in a bouquet of white gypsophila, bear grass, and salal.

The Romans lolled in rose petals at their banquets, strewing them on couches, tables, and floors. Chrysanthemums were fried with eggs and eaten in salads in Italy, and they were consumed elsewhere as an antidote to an overdose of opium. Ancient Greeks called carnations, the gods’ flowers, and believed they were especially sacred to Zeus. Four centuries ago, carnations were dipped into sugar and egg white to make candy, and they were boiled into jam that was reputed to be good for the heart. There are 2,000 varieties of carnations. Some of the names by which they have been known over the centuries are just as colorful as the blossoms themselves: Bleeding Swain, Painted Ladies, or Fiery Trial.

The nameless carnations in my birthday bouquet are white and flecked with mauve. Their scalloped edges look rough but are soft to the touch. They have a fragrance so gentle, reminiscent of cloves, that it makes me want to inhale again and again. They have travelled a long way, these carnations, farther than most of us go in a year. By my reckoning, they were picked as few as 10 days ago on a flower farm somewhere on the Bogotá plateau, where most of Colombia’s flower cultivation takes place.

The journey of these carnations, though, could be said to have started almost four decades ago, when the U.S. Agency for International Development (US AID) realized that the Bogotá savanna had all the climatic ingredients necessary for a thriving carnation industry. At 2,600 meters above sea level, the plain was pleasantly warm but not sizzling hot. Carnations flourished under its frequent cloud cover. Water was plentiful, labor cheap, and Bogotá’s international airport enticingly close. In 1965, 17 tons of carnations and chrysanthemums were exported with help from U.S. AID, according to a paper published in 1998 by the International Labor Organization, Employment and Working Conditions in the Colombian Flower Industry. By 1996, Colombia exported 50 varieties of flowers.

Along with Colombia’s equatorial climate, however, came tropical pests: a multitude of mites, midges, flies, and fungi that nobody wants in North America or Europe. “You cannot sell flowers to the public that have bugs jumping off them,” says Rob Ormrod, Western Canada’s horticulture specialist for the Canadian Food Inspection Agency, in a telephone interview from his office in Kelowna.

So flower growers spray like Niagara Falls to ensure their perishable wares will not be turned back by border inspectors. Independent researchers estimate that Colombian flower growers use between 212 and 337 kilograms of active pesticide ingredients per hectare each year, according to the Sanchez study. Margaret Reeves, one of three staff scientists for the *Pesticide Action Network North America*, says an active ingredient is the main component for which a pesticide is sold and represents anywhere from five percent to 90 percent of its volume. The Association of Colombian Flower Exporters, an employers’ association representing the interests of flower growers and exporters, says that the 156 companies participating in its environmental program, *Florverde*, have reduced spraying to 130 kilograms of active ingredients per hectare per year. (In Holland, by comparison, flower growers spray an average of 114 kilograms of active ingredients annually on each hectare, according to the Cactus report.)

Of the 134 pesticides approved for use in the Colombian flower industry, seven are considered by the Colombian government to be extremely toxic. At least 12 of the approved pesticides, including some on an extremely toxic list, are named by the U.S. Environmental Protection Agency as possible or probable carcinogens. These include Aldicarb and Metomil, insecticides and nematicides that belong to a class of pesticides known as N-methyl carbonates. Both are suspected endocrine-system disrupters. Exposure can cause sterility or decreased fertility, impaired development, birth defects of the reproductive tract, and metabolic disorders, according to the Pesticide Action Network’s on-line database.

Dr. Manuel Rozenthal, a Colombian exile living in Canada, was a general practitioner in Bogotá in the early 1980s, employed by the Colombian Agricultural Institute. Rozenthal, now a surgeon in Toronto, says that about half of his patients were flower workers from the savanna area of Funza. “I remember that they had all kinds of acute and chronic respiratory problems such as bronchitis and asthma. He vividly remembers lots of contact dermatitis. “They had all kinds of skin trouble on any exposed area: especially the hands and face. What impressed me the most, but of course I couldn’t prove this, was that there were more women [than average] who gave birth to children with birth defects: kidney troubles, mental retardation, bone deformities. I started asking my patients, and they would tell me that women who got pregnant quite often had premature babies.”

When researchers from the Colombian National Institute of Health studied pregnant flower workers in 1990, they found a higher-than-average rate of miscarriages, premature births, and congenital malformations among their offspring. In one group of 1,320 children born to former flower workers, 222 (17 percent) had congenital malformations.

Although DDT is illegal in Colombia, it showed up in 22 out of 25 water samples taken in the Bogotá savanna in 1995 by Colombia’s National University as part of a study assisted by the national health ministry. Seven other pesticides were also detected in most of the water samples, including the insecticides, Lindane and Aldrin. These are organo-chlorines, many of which are acute nervous-system toxins, according to the Pesticide Action Network’s Reeves.

To prepare the savanna soil for flowers, it is usually blasted with pesticides to remove insects, even helpful ones like earthworms. When there are no organisms left in the soil that can be harmful to flowers, seeds or cuttings are planted and the soil is loaded with fertilizers to help flowers grow at a fairy-tale pace. As carnations sprout, workers string meshing across the beds to help stalks grow straight. Crooked stalks must be broken off, because shoppers do not want to buy lopsided carnations any more than they want to purchase spotty apples or misshapen tomatoes. Consumers also demand unblemished flowers, without insect nibbles on the petals or leaves.

Colombia has regulations governing pesticide use, but there are no rules specifically for greenhouses. “The application of pesticides in greenhouses, or constructions covered in plastic, triples the impact of these substances,” Rangel says. “And greenhouses are where almost all the flower production takes place.”

When the carnations are budding but not yet in bloom, workers cut them for export. In refrigerated rooms, the flowers are packed in long boxes and trucked to the Bogotá airport. After they landed in Miami as carnations bound for Canada, they were stored briefly in a refrigerated warehouse; then loaded into a semitrailer for the four-day drive to Vancouver. Carnations are a particularly hardy species and easily withstand long journeys, unlike roses, which are often hydrated with a sugary solution before they begin their trip.

At the Canadian/U.S. border, carnations may have been examined by the Canadian Food Inspection Agency. Fresh flowers are a low-risk pathway for unwanted pests like thrips and flies, and, especially after a rigorous inspection by U.S. officials in Miami, they do not require much vigilance, says Ormrod.

“Unlike imported food and seeds, cut flowers coming into Canada are not tested for pesticide residues because they are not ingested,” says CFIA media spokesperson Alain Charette. Nor does the U.S. government test for pesticide residues on imported cut flowers, even though a 1979 study published in the American Journal of Public Health recommended that safety standards be set. The study was conducted after 10 Florida florists reported possible organophosphate-pesticide poisoning following exposure to residues on cut flowers from Colombia. In Canada, neither the CFIA nor the federal Pesticide Management Regulatory Agency has ever “had any complaints about pesticides on cut flowers producing any unwanted effects,” Charette says.

Reeves says flower buyers should be primarily concerned about the impact of pesticides on workers. “Although, given the quantities used on flowers, they should be worried about pesticide residues too,” she says in a telephone interview. “The problem is that there’s not much data because flowers are not a food crop.”

On a Sunday, my carnations were unloaded into a refrigerated storage area at Burnaby’s Cambrian Flower Distribution. Most imports coming into B.C. are dispersed through large distributors like Cambrian, which sells to florists and smaller distributors as far away as the Prairies. On a Tuesday, less than 48 hours after they arrived at Cambrian, my carnations, still in their box, were packed into a white, refrigerated one-ton truck owned by Pacific Flowers, one of the two main flower distributors on Vancouver Island. They were shipped to Victoria on the ferry. By the time they arrived at Pacific Flowers, a family-run business in Victoria for three generations, the carnations were worth about 22 cents each, almost double the 12-and-a-half cents paid to a Colombian grower. On a Wednesday, they were delivered to a Victoria corner store, where my family purchased them in a bouquet along with bear grass, chrysanthemums, gerbera, alstroemeria, statice, and salal. A bunch of pink or red carnations at the same store cost $6.99; single white carnations sold for 99 cents each.

Fresh flowers were once a luxury item in Canada purchased from florists for occasions like weddings and funerals. Now they are sold by drugstores, corner stores, grocery stores, and chain stores. Floriculture sales in B.C. almost doubled from 1993 to 2000, to $266 million, says a May 2001 report by the B.C. Agriculture Ministry. Ken Kirby, owner of Kirby Floral Inc., another major Vancouver-area distributor, says Vancouver residents rank third in the world after Germans and Dutch in terms of flower consumption, with the average Vancouver family purchasing flowers up to 15 times a year. “The volumes coming into this town are massive,” Kirby says.

Cheap production costs in Colombia and other southern countries have displaced domestic production of traditional flowers such as carnations and chrysanthemums, says the Agriculture Ministry report, *An Overview of the BC Floriculture Industry.* Yet the report notes that the flower industry in B.C. is thriving as growers turn to “specialty cut flowers such as gerbera, lizianthus, snapdragons and alstroemeria that are usually more difficult to grow and ship.”

Garry Stubbs, who runs Pacific Flowers’ supply shop, says Canadian consumers were just as likely to buy artificial roses as fresh ones until the mid-1990s. Tucked into a side street in a semi-industrial area of Victoria, the supply depot looks like a Santa’s workshop for the flower industry. Visitors wind their way past shelves of artificial flowers, assorted ribbons and twines, brightly colored stacks of cellophane, happy-birthday sticks, plastic Easter bunnies, and other flower-arrangement paraphernalia. “Now people want the fresh stuff,” says Stubbs, who works alongside his mother and aunt in the business his grandfather started 40 years ago. “This is the biggest change the industry’s ever seen. If I’m going to sell anything it’s got to be cut flowers or it’s not going to sell.”

Below the shop, employees scoot back and forth between a cooled storage room and three refrigerated one-ton trucks. Piles of sealed and open long cardboard boxes lie on the ground beside the trucks. Stickers and stamps on the flower boxes tell the stories of their journeys. There are white gladiolas, tree ferns, and leather leaf from Florida, gypsophila from Ecuador, calla lilies from New Zealand, and yellow-and-rust-colored daisies from Costa Rica. The daisies, a rush order for Mother’s Day hop scotched from San José to Vancouver on American Airlines flights, according to customs stickers, while bunches of red and white carnations peek out of a box labelled Colibri Flowers, Bogotá, Colombia. An empty box hails from the Nina Maria farm in Bogotá. The waybill shows that it came through Miami, and it also bears the Cambrian stamp.

As I sift through harrowing reports of working conditions and pesticide use in the flower industry, not just in Colombia but also in Ecuador, Costa Rica, Zambia, and Zimbabwe, my first and future inclination is to say: “No more imported flowers, please.”

Yet many Canadian families depend on the flower industry for their livelihood. A Canadian florist with more than three years’ experience earns an average of $12 an hour, flower designers start at only $9 and so do tens of thousands of Colombian families. Rangel says a high percentage of Colombian flower workers are single mothers with two or three children. Although Rangel says she rarely buys cut flowers, preferring instead to enjoy the memory of daisies and roses growing in the garden of her childhood Colombian home, she does not believe that boycotts, whether personal or organized, are the answer.

In mid-May, Rangel flew to Brussels to meet with Oxfam and other groups. If she had zipped across to Germany or Switzerland, she could have walked into a major supermarket or florist shop and purchased a bunch of miniature roses or spray carnations with a fair flowers’ label. The label tells consumers that the flowers were produced in accordance with the International Code of Conduct for the Production of Cut Flowers (ICC).

Flower growers who sign the ICC, established four years ago by European nonprofit groups and unions, agree to follow international human-rights principles, basic environmental standards, and international labor conventions. These include a 48-hour work week, a living wage, and security of employment for their workers, as well as detailed health-and-safety provisions and measures to protect the environment. Fair flowers are sold by Switzerland’s two largest supermarkets, Migros and Coop, which together account for 65 percent of Swiss flower sales. Individual florists in Switzerland and Germany also sell flowers that meet ICC standards. But there is no fair flowers’ program in Canada, according to Flowers Canada, an 11,000-member association for the Canadian floriculture industry. Marketing and communications coordinator Joel Beatzon says he is not familiar with the international code of conduct and has not heard any rumblings about labor conditions in Colombian greenhouses.

Two Colombian flower farms, called Flores de Tenjo and Flores la Esmeralda, are among four dozen in South America and Africa that have signed the code, says Frank Brassel, coordinator for Germany’s Flower Label Program. Positive changes have already taken place; in a telephone interview from Herne, Brassel says the farms are using fewer pesticides and offering workers permanent contracts. Last March, when Brassel visited the Flores de Tenjo farm, a worker told him that she was paid US$158 a month instead of the average US$130. “From the start, I was given social-security, transport allowance, and the treatment at work is good,” said Claudia Maria, who is identified only by her first name in a September 2001flower-campaign update sent by Brassel. “I was given a uniform, gloves and leather boots; I feel very satisfied; they fumigate little, only at the weekend, and we first enter the glasshouse again on Monday.”

Among the stacks of broken-down flower boxes at Pacific Flowers lies a box from Colobri Flowers in Colombia with a message inked on it. The brief statement is testament to a global consumer culture that encourages shoppers to seek reassurance that their purchases are “green”, yet denies them the full story. The message tells only a snippet of the long journey made by the red and white carnations that lay inside, carried partway around the world in planes and trucks, and cooled to exacting standards. It says, ironically: “For a better and cleaner environment this box was not bleached white.”