

# The Hercules Powder Company

*Corn is king in some parts of the nation—cotton in others. In San Diego, kelp bids fair to eventually wield the scepter as the greatest of all great vegetable blessings.*

--San Diego Union, January 1, 1917

Kelp--best known as the flyblown brown seaweed that fouls beaches and tangles the legs of ocean swimmers—is actually one of San Diego’s great natural products. In the early 1900s, the processing of ocean kelp by the Hercules Powder Company in a huge plant in Chula Vista employed hundreds of people and helped win a war.

Hercules Inc. began in 1913 as a divested business of the DuPont de Nemours Powder Company. A federal anti-trust ruling had forced DuPont to part with its famed explosives business. The new company built several gunpowder and dynamite plants; in Chula Vista the firm constructed a major facility to process kelp for the extraction of potash--a key ingredient in black gunpowder, and acetone--used to make cordite, the smokeless powder favored by the British armed forces.

Only recently had chemical scientists discovered the means of producing large quantities of potash and acetone from kelp. Ground up and liquefied, kelp could be fermented and then processed to produce several useful products. The discovery could not have come at a better time. At the outbreak of World War I, the world’s largest supplier of organic potash was Germany, which embargoed the supply at the start of the war. By 1916, the price of potash rose 1000 percent.

In February 1916, Hercules began construction of a \$7 million kelp processing plant on a 30-acre track tideland, now known as “Gunpowder Point.” Completed in only six months, the plant featured 156 redwood tanks for “digesting” macerated kelp. The tanks were 15 feet tall, 25 feet in diameter, and held 50,000 gallons of kelp “liquor.” It was thought to be the largest tank structure of its kind in the world.

To feed the giant tank farm, Hercules built three enormous, ocean-going harvesters. The *Joplin*, *Kenvil*, and *Bacchus* trolled the kelp beds of the San Diego coast, cutting seaweed like McCormick reapers--500 tons every 24 hours. Crews of twelve men lived and worked on board. “The kelp farmers are a happy lot, reported the *San Diego Union*, “for there will never be an ‘off’ year.”



Bacchus Chula Vista Public Library

A fleet of barges and tow-boats accompanied the harvesters, including a floating machine shop to service the equipment at sea. The big loads of finely chopped kelp were pumped onto the barges by pipe booms. The barges then brought the kelp to the Hercules pier, where it was pumped to the processing plant. The harvesters worked continuously, returning to port only in bad weather.

As many as 1,500 people worked at Hercules, most arriving each day on a trolley line from "Potash Junction" at E Street in Chula Vista. In 12-hour shifts the factory ran 24 hours a day. Chemists and skilled machinists were well paid but the minimum wage was a bare .25 cents an hour, according to the *Union*, with a 20 percent bonus to workers after two weeks of employment.

In an interview with historian Peter Neushul (UC Santa Barbara) a former worker, R. O. Downs, described the working conditions as very dangerous. Yet there were few reported accidents. Perhaps the worst aspect of the Hercules plant was the smell of rotting kelp, which Downs called "enough to drive a dog off a gut-wagon."

With the country at war, security at Hercules was tight. The complete factory was enclosed by barbed wire and armed guards patrolled the perimeter. "The entire process is not only a secret one," noted the *Union*, "but the Hercules people object to being bothered by idlers. Photographers are chased away with avidity."

Profits from the sale of potash and acetone for making ammunition were large for Hercules during the war years but dwindled sharply after 1918. In January 1919, Hercules announced that the Chula Vista plant would close. A "War Workers Badge" was awarded to each employee along with thanks from the U.S. government for their "vital part in the prosecution of the war, second only to the part played by the man in actual contact with the enemy."

After the plant's closure the San Diego Oil Products Corp. used the site as a cottonseed warehouse but fire destroyed the property in 1929. For the next several decades truck farmers worked the land. In the 1970s, the cult film classic "Attack of the Killer Tomatoes" was shot in the fields of Gunpowder Point by future State Senator Steve Peace.

Today, the Chula Vista Nature Center occupies the old site of the Hercules Powder Company. Since its opening in 1987, the Nature Center has been recognized world-wide for its programs and exhibits on wetlands and wildlife protection. The surrounding Sweetwater Marsh was declared a national wildlife refuge in 1989.



The Hercules Powder Company. *Chula Vista Public Library*

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