

The Snowman

No matter what the weather, Fergus Smith makes great snow.

Fergus Smith is a snow-maker from Londonderry, but he could have fooled me. The day I visit him, I half expect to meet a mad scientist. At the entrance to his property, there's a yellow sign that reads, "Grave Danger! Radiation!" I drive ahead



Fergus Smith

slowly, hoping the warning is his idea of a joke.

The long road leads to a large white barn on forty acres of land. I knock on the door and let myself in. The first floor is filled with stacks of aluminum sleds, shelves of foreign gadgets, ancient Apple computers, and the shell of a black pickup truck. I'm reminded of the movie *Back to the Future*, and wonder if I've stumbled upon Vermont's version of the DeLorean time machine.

When Smith appears in person he's not the wild and wiry-haired scientist in a lab coat that I'd imagined. He's a big bear of a man. He shakes my hand and smiles broadly, as if he'd planned this show all along. There's a distinct twinkle in his eyes. And his hair is silvery white. Give Fergus Smith a corn cob pipe and he might remind you of Frosty himself.

In the seventies, Smith worked in

high-pressure chemistry. Snowmaking didn't enter his mind until his friend, mechanical engineer, David Arch, asked for suggestions to improve Stratton's snowmaking system. Smith took the request a step further. "Put simply," he tells me, "the system wasn't energy efficient. I thought I could do better."

Smith designed several prototypes before coming up with the snow gun he sells today. The modest device has no moving parts. At six-inches high, it looks like a quart-sized paint can with two nozzles on either side. Each nozzle is connected to a main pipeline—one that delivers compressed air—the other water. The mixture of air and water is released through tiny slits in the snow gun. And presto! The water freezes in mid-air and covers the ground in snow.

Originally, poor ski sales were the impetus to make snow. In 1949, a Connecticut ski manufacturer called Tey

Company was in a slump after a snowless winter. Determined to solve the problem, the company's engineer invented a snow making system using a paint spray compressor, nozzle and a garden hose.

The invention was a success, but ski areas in the United States did not fully embrace snowmaking until the mid-seventies. As skiing became popular, the increasing number of skiers made it impossible for ski areas to maintain a base of natural snow. This problem was especially prevalent on the east coast, where unpredictable winters and a growing population forced ski areas to reconsider snowmaking.

Today there is a snowmaking system designed to suit most every need. The designs come in a variety of shapes and sizes. There are tower guns, fan guns, computer-controlled systems and the portable snow guns that Smith designs. "Most ski areas use 30-40 foot tower guns. They're designed to cover a huge area, but often blow snow into the trees or just below them," Smith says. "My snow guns weigh only 35 lbs. and can be easily attached to aluminum sleds. Their portability enables them to cover a more precise area."

In a world where bigger is better, Smith conceded to ski resort demands for tower guns—only his are portable and half the size of the "big guys", standing 10-20 feet high. When I ask what the shorter tower's advantage is, he laughs and says, "They stand slightly above the skiers so the snow won't hit them in the face."

Smith makes and stores all of his snowmaking equipment in his barn. The forty-acre lot behind it serves as a useful testing ground. He can regulate the snow's weight and texture by simply adjusting the flow of water that leads to the gun. The more water, the more durable the surface. When less water is used, the snow looks and feels like powder.

When Smith is not making snow for ski areas, he's creating winter

scenes for Hollywood movies. Film work sometimes requires Smith to bring his own water source, compressors, and pipe line. For a scene in *Home Alone 2*, he drove all of his equipment to New York in his 1962 American La France fire truck. "I pulled into Central Park and set pipe around the duck pond by the Plaza hotel," he says, clearly pleased by the memory.

The Vermont Film Bureau also keeps Smith's name handy. He's worked on many popular Vermont films, including *Baby Boom* (Peru), *Funny Farm* (Grafton) and *The Survivors* (West Fairlee). While working on movies may seem glamorous, Smith claims otherwise. "It's hard. My crew and I work night and day to get snow on the ground." He recalls working

thirty-six hours at Lake Morey for a scene in *The Survivors*. "It was so cold, we had to do everything possible to keep the pipe line from freezing." The upside? *The Survivors* starred Walter Matthau—Smith's favorite actor.

There are times when Smith receives an emergency request for snow. This occurred during preparations for the 1980 Olympics in Lake Placid, New York. Snow was desperately needed for the ski jump and cross-country course, but the Olympic planning board hadn't budgeted for it. Smith tells me, "I got the call only three weeks before the Olympics. They weren't planning on using manmade snow, so there was nowhere to run hose or pipe." Ever the resourceful businessman, Smith had piles of snow delivered on state highway trucks.

It seems snowmakers are accustomed to meeting impossible deadlines. The busiest time of year falls just

after Labor Day. Smith receives orders from all over the world, and he has only a few short weeks to meet them. Most ski areas expect to receive their snowmaking supplies by October, to leave them enough time to prepare for a Thanksgiving Day opening. The rush is due to weather. A three-day cold snap is necessary before a solid base of snow can be created.

The ski area orders are common, but Smith also receives some unique requests—like the one that came from New York City's famous Tavern On the Green restaurant. "The owners wanted snow to fall gently on the customers as they entered the restaurant, you know, to create a holiday mood," Smith says, smiling. "But when I told them someone would need to shovel the snow, they quickly changed their minds."

There are requests that inevitably come in summer, when the weather is too warm to make snow. But Smith knows how to beat Mother Nature. When Fashion Bug wanted to do a photo shoot for their winter clothing line, Smith delivered. He created snow with high expansion foam, typically used for firefighting. The Fashion Bug models arranged themselves in Smith's backyard, dressed to kill in their winter duds. Smith had one rule: don't step in the foam. "It dissolves on contact, so the models had to stand in front of it or behind it. But the foam looked really beautiful, just like snow," he says, proudly.

No matter the weather or the challenge, one thing is for certain—Fergus Smith makes a terrific snowman. ♦

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