

Dust Storms and Rain Making

When I was a child, probably eight or nine years old, Texas and neighboring states were suffering a prolonged drought, so bad that the area became a wide-spread dust bowl. I recall some of the attempts, out of desperation, to experiment with making rain. Science has achieved a number of advances in predicting but not in altering weather. The efforts at that time were not based on science, and certainly were not successful.

One idea was to seek the help of Indian rain makers through their rain dances. Several Indian tribes obliged with their colorful ceremonies. I remember seeing some of the newsreels of those dances. Alas, they did not produce rain.

Another speculation about how to produce rain was based on the observation that during World War I rain was an almost constant burden. All the pictures I saw of soldiers in the field in Europe showed miserable, wet trenches and mud-covered soldiers slogging through the soggy battlefields in pouring rain. The sound of war was deafening, with continuous bombardments from both sides. Some "experts" reached the inevitable conclusion that not only the noise but more importantly the bombs penetrating the moisture-laden atmosphere might have caused the almost constant rain. Consequently, one method for causing rain was hypothesized to be the firing of cannon into the atmosphere. Alas, the hypothesis proved to be false. No moisture was present, no rain resulted, and the drought continued.

Another theory suggested that the seeding of clouds with pellets of dry ice might encourage the production of rain. Unfortunately, the skies continued cloudless. As with the bombardment theory, the idea was that moisture had to be present in the skies, and there was none. The hot sun continued to beat down upon the lands without the relief of any visible clouds.

Some people suggested that such man-made practices as cloud-seeding, if successful, might not please everyone; possibly some people would not need or want rain. What would happen if the experiment were so successful that damaging floods resulted? I remember my mother and father discussing such possibilities. Who, then, would be prepared to compensate those whose lands were damaged? Nevertheless, many people urged the trial. One ambitious entrepreneur in Dallas took his plane, every dawn, as high as he could go to scout for the presence of clouds anywhere on the horizon. When he spotted even the most minute of clouds, he returned to earth, picked up a helper, and loaded the plane with containers of dry ice pellets. Alas, either the theory was no good or the few clouds he was able to find were not heavy enough with moisture to produce rain.

One result of the continued dry weather was fierce dust storms. I remember numerous occasions of seeing a dark cloud of dust approach from the west. It soon engulfed us. All the soil of west Texas seemed to be in the air over eastern Texas. The sky was a dull red, frequently blotting out the sun and causing an early evening. The dust-laden air was suffocating, making breathing difficult, and covering every surface with a fine, gritty

layer of sandy dust. Everyone with respiratory difficulties, especially children and the elderly, was urged to remain indoors and to limit activity as much as possible. Mother would soak sheets in water and hang them over doors and windows, especially those with a western exposure. The damp sheets would soon be dirty. I can still taste the dust and feel it on my face and clothes. Most such storms lasted no more than a couple of days at the most, but they repeated themselves often enough to make breathing difficult. After the atmosphere cleared, the reminders of the dust storm lingered, fine grit on the furniture and floors of the house and also on the trees, bushes, and grass, and on the streets and cars.

Eventually, the drought ended and rains returned, (in the form of floods which eroded the damaged fields even more) not, however, before the resulting dryness, coupled with poor farming practices, resulted in devastating dust bowls across Texas, Oklahoma, and neighboring states. The pictures we saw in newspapers and newsreels during that time still haunt those who lived then. Indeed, since then we have seen collections of photographs showing the desolation of the people and the land: an abandoned plow in a barren field; a discouraged woman seated on a paint-less porch staring hopelessly into the distance; grubby, skinny children looking apathetically at the camera; decrepit Ford cars converted into makeshift wagons loaded with the pathetic remnants of household goods, bound for the promised land of the west coast. Stories about the Okies, a generic term which included the bankrupt farming families of the entire area, not just Oklahoma, remain to keep those hard times alive in the minds of all who read such books as John Steinbeck's *Grapes of Wrath*. The literature of the time correctly portrayed the physical and psychic deterioration of the day, allowing future generations to feel how it was.



Those of us who lived in Dallas and other cities did not witness first-hand much of the devastation beyond the extreme discomfort of the dusty air. But I remember driving north from Dallas on our way to visit relatives in Gainesville, Texas, or Ardmore, Oklahoma. The dismal sight of crop-less fields and sun-painted farm buildings impressed themselves upon my mind. After World War II, when we drove through those same areas, I was delighted to see thriving cotton, onion, and corn fields and renovated, painted farm houses and other buildings; indeed, the landscape looked well tended and prosperous.

Many years later, in the early fifties, we had a brief renewal of the dust storms of the twenties and thirties, fortunately not so extensive or damaging. The sight of a dull red cloud on the western horizon was enough to catapult me back into the dust bowl nightmares of my childhood. This time it was Paul and I who hung damp sheets at the windows and doors to try to protect our children and ourselves. The renewal of the choking, suffocating feel of the dust-laden air took me back to my childhood, recalling sensations I thought I had forgotten. Lately, I have found that the floods in the upper Midwest this year, and those in the Mississippi valley three years ago, serve as another revival of sensations about that other extreme, the dust storms of my childhood. Nature is still superior to the efforts of science.