

teaching children several days a week in English, and other days in Spanish. The students receive dual immersion in those two languages. The limited English proficient students learn in their native language and in English. And at the end of the fifth, sixth, and seventh grades, these children have higher levels of literacy than that have only learned in one language. There are successes. Not all of them are successful, but there are successes, and this legislation builds on those programs that have been successful.

Since 1995, the two-way bilingual education programs introduced in a number of the elementary schools in the St. John's Valley in the State of Maine have taken substantial steps to improve student achievement. The French-English program is an additive bilingual program, meaning that all students learn a second language without compromising their first language. This is the only program of its kind in Maine.

The St. John's Valley district, through support from a federal bilingual education grant, supported costs for teaching training, materials, and administrative costs between 1995 and 2000. In 1997, students from the immersion program at the second grade outperformed non-immersion students on the California Test of Basic Skills in reading, vocabulary, and language mechanics. The trend continued in 1998 with students in the bilingual education program placing 93rd in the national percentile in reading and math on that test. Clearly, there are programs that work, and they work well.

The additional commitment to reading and early reading in this bill is enormously important. Parental involvement, resources for the construction of charter schools, expansion of school libraries, assistance for children's mental health and emotional needs—this is something which is of enormous importance. Supportive resources for struggling schools, accountability for results, protecting civil rights of all children—each reform is eminently worthwhile.

Taken together, the whole is greater than the sum of its parts. This conference report deserves to receive an overwhelming vote in the Senate. I look forward to that tomorrow.

If there is no one further who desires to speak, I suggest the absence of a quorum.

The legislative clerk proceeded to call the roll.

Mr. KENNEDY. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### AGRICULTURE, CONSERVATION, AND RURAL ENHANCEMENT ACT OF 2001—Resumed

Mr. KENNEDY. Mr. President, I call for the regular order with respect to S. 1731.

The PRESIDING OFFICER. The clerk will report the title of the bill.

The assistant legislative clerk read as follows:

A bill (S. 1731) to strengthen the safety net for agriculture producers, to enhance resource conservation and rural development, to provide for farm credit, agriculture research, nutrition, and related programs, to ensure consumers abundant food and fiber, and for other purposes.

#### CLOTURE MOTION

Mr. KENNEDY. I send a cloture motion to the desk.

The PRESIDING OFFICER. The cloture motion having been presented under rule XXII, the Chair directs the clerk to read the motion.

The legislative clerk read as follows:

#### CLOTURE MOTION

We, the undersigned Senators, in accordance with the provisions of rule XXII of the Standing Rules of the Senate, hereby move to bring to a close the debate on the Daschle for Harkin substitute amendment No. 2471 to Calendar No. 237, S. 1731, the farm bill:

Paul Wellstone, Tim Johnson, Bill Nelson, Harry Reid, Blanche L. Lincoln, Zell Miller, Barbara Boxer, Byron L. Dorgan, Max Baucus, Tom Carper, Ben Nelson, Kent Conrad, Tom Harkin, Patrick J. Leahy, Fritz Hollings, Jean Carnahan.

Mr. KENNEDY. I ask consent the mandatory quorum be waived with respect to the cloture motion.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### MORNING BUSINESS

Mr. KENNEDY. I ask unanimous consent there now be a period of morning business, with Senators permitted to speak for up to 5 minutes each.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### ANTHRAX

Mr. BYRD. Mr. President, during the past few weeks, the American people have learned more than they thought they would ever want to know about the ancient scourge of anthrax. From reading the morning newspaper, and watching the nightly news, we have learned much about what anthrax is, how it infects, the dangers it poses, and ways to treat it.

But there was been very little attention given to the history of this dreaded and deadly disease that is on everyone's mind. From where did it come? What has been its impact on the world?

Let me begin by pointing out that the disease derives its name from anthracis, the Latin transliteration of the Greek word for coal, and the name probably stems from the black scab-

like crust that the anthrax lesion develops. But through the ages, anthrax has been called by a variety of names. In Russia, cutaneous anthrax—infection through the skin—has also been called "Siberian ulcers" because of the prevalence of the disease in that region. Inhalation anthrax has been called "wool sorters" disease because it comes most commonly from inhalation of spore-containing dust produced when animal hair or hides are handled. A colloquial German term for anthrax is "ragpicker's disease."

The exact origins of anthrax and the time of its arrival upon Earth are unknown. But, it is commonly accepted that anthrax has been killing animals, and humans too, for thousands of years, perhaps as much as 10,000 years, dating back to the beginnings of animal domestication. It is certainly a pestilence as old as pastoralism and the origins of civilization. It is believed that man probably became aware of anthrax when he turned from hunting to a life of farming and animal husbandry.

The first recorded appearance of anthrax can be found in the Bible, where it appears that God may have used anthrax to punish the Pharaoh for holding the ancient Hebrews in bondage. The fifth Egyptian plague that affected livestock, and the sixth plague, known as the plague of boils, could well have been anthrax. These plagues are depicted in the Book of Exodus which reads: "Behold thy hand shall be upon thy fields and a very grievous murrain upon thy horses, and asses, and camels and oxen, and sheep." Murrain, according to the dictionary, is a group of cattle diseases that includes anthrax.

Anthrax may well have been Apollo's "burning wind of plague" that begins Homer's "Iliad," a plague that attacked "pack animals first, and dogs, but soldiers too." Ancient Greek physicians, Hippocrates and Galen, described skin lesions that were probably those of anthrax. Some medical historians believe that the "plague of Athens," 430-427 B.C. as recorded in Thucydides's "History of the Peloponnesian War," was probably anthrax. Thucydides describes symptoms of fever, bleeding, and "small pustules and ulcers," all consistent with a severe form of the anthrax infection.

In ancient Rome, Virgil's "Georgics" laments the shortage of animals caused by what appears to have been anthrax: "Now in droves she deals out death, and in the very stalls, piles up the bodies, rotting with putrid foulness."

For the next 2,000 years, animal and human anthrax ravaged Europe and Asia. At periodic intervals, plagues of anthrax swept across huge tracts of land killing massive numbers of livestock and people. In 1613, for example, 60,000 persons in southern Europe died of anthrax.

The disease was first recognized in North America during the colonial

days. In Santo Domingo in 1770, about 15,000 people are reported to have died from intestinal anthrax contracted by eating diseased meat. The first recorded human case of anthrax in the United States occurred in Philadelphia in 1834.

In the late 19th century, anthrax contributed to two medical breakthroughs. The first came in 1876 when the German physician Robert Koch confirmed the bacterial origins of anthrax. Koch grew the organism *Bacillus anthracis* in pure culture. He demonstrated its ability to form endospores, and produced experimental anthrax by injecting it into animals. This was the first microorganism ever specifically linked to a disease and demonstrated that germs cause disease.

Just 5 years later, in 1881, anthrax again contributed to medical history when the legendary French chemist, Louis Pasteur, produced a vaccine that helped prevent anthrax infection in animals. This made anthrax the first disease to be prevented by a vaccine.

Inspired by Pasteur's contributions to control anthrax in animals, in 1895, an Italian investigator named Achille Sclavo developed a serum for the treatment of anthrax in humans. Since then, the treatment of human anthrax has been further refined and the introduction of a succession of drugs, including penicillin, tetracycline, and, I must say, Cipro.

Throughout the 20th century, despite all the progress that had been made in identifying and fighting the disease, naturally occurring anthrax has continued to take a heavy and widespread toll on the world's population, both animal and human. Cases of livestock being devastated by anthrax were reported every year throughout the world, with Spain, Albania, Italy, Romania, Turkey, Greece, and Russia suffering significant outbreaks on a regular basis. In 1945, an anthrax outbreak in Iran killed more than a million sheep. In the United States, an outbreak of anthrax in Kansas and Oklahoma in 1957 killed 1,500 head of cattle, numerous pigs, horses, and sheep.

In the United States, there have also been scattered, fatal cases of inhalation anthrax. Between 1930 and 1960, there was a football player who may have contracted the disease from playing-field soil, a San Francisco woman who beat bongo drums made of infected skin, a construction worker who handled contaminated felt, and several gardeners whose infections were traced to contaminated bone meal fertilizer. In Manchester, New Hampshire, in 1957, inhalation anthrax killed four woolen-mill workers. In the same year, a man and a woman living near a Philadelphia tannery also died of inhalation anthrax.

The most deadly human anthrax epidemic in the 20th century occurred in Zimbabwe between 1979 and 1985. More

than 10,000 people were infected, and at least 182 cases were fatal.

But, it was in the 20th century that the history of anthrax took on another lethal dimension—anthrax became a weapon of war.

Biological warfare, of course, was not novel to the 20th century. The Romans fouled water supplies of their enemies by dumping the rotting corpses of people and animals into the wells of their enemies. The Mongols catapulted the cadavers of persons who had succumbed to bubonic plague inside the town walls of cities they had besieged. The British, and later white Americans, destroyed Indian tribes by giving them disease-infected clothing.

But it was in the 20th century that mankind started developing, experimenting with, and then deploying anthrax as a weapon of war.

World War I is well remembered for introducing poison gas into warfare. But, during that war, Germany also established a large biological weapons program that involved anthrax. They infected livestock exports, bound for Russia and Allied countries, with the disease. In Norway, police arrested German agents carrying vials of anthrax bacteria with which the agents intended to infect reindeer being used to carry supplies to the Allied forces in Europe. In the United States, German agents were reported to have injected horses, mules, and cattle with anthrax.

International revulsion at the horrors of World War I included a revulsion against chemical and biological weapons, and this led to the Geneva Protocol of 1925. This treaty, which 28 nations signed, prohibited the use of both chemical and biological weapons in war.

The high hopes for this treaty were never achieved because it only banned the use of biological weapons in war, and did not expressly forbid their production and development. Furthermore, several nations, including the United States, reserved the right to use biological weapons in reprisal if first used against them—thus implicitly maintaining the right to develop and stockpile the weapons.

The failure of the treaty was revealed in the early stages of World War II, when imperial Japan began a massive, deadly biological warfare program in Manchuria, the infamous "Unit 731," which included the development and use of anthrax. Japanese scientists conducted experiments on Chinese prisoners, while the Japanese military targeted both the Chinese military and civilians as well as Manchurian civilians with anthrax weapons, killing thousands.

There is no indication that Nazi Germany had any investment in biological weapons capability. According to Jeanne Guillemin, who has researched and written extensively on anthrax, a directive from German dictator Adolph

Hitler forbade research on offensive biological weapons. However, late in the war, Guillemin writes, it appears that some of Hitler's subordinates, notably Reich Marshal Herman Goring, began supporting research on biological weapons at a small secret facility in Poland, but the war ended before the effort produced any results.

Meanwhile, Allied governments had stepped up full scale anthrax-based biological warfare programs. In 1942, the British military experimented with explosives testing involving anthrax spores on an island just off the coast of Scotland. It would take the British 36 years, 280 tons of formaldehyde, and 2000 tons of seawater to decontaminate the island.

In 1943, the United States began developing anthrax weapons. By the next year, 1944, American engineers, at what is now Fort Detrick, MD, had produced 5,000 anthrax bombs for use by the Allied forces, but they were never deployed.

After World War II, the United States and the Soviet Union engaged not only in a full-scale, nuclear arms race, but also in a biological weapons race as well. At times, the cost was high, in human as well as financial terms. In 1951, for example, two Fort Detrick employees died after exposure to anthrax. Neither country, however, was deterred. The cold war was underway and so was the effort to develop deadly weaponry. Therefore, both countries continued stockpiling germs as well as nukes.

In 1969, President Richard Nixon had finally had enough. After reviewing the extensive U.S. investment in offensive biological weapons, he declared: "Mankind already carries in its own hands too many of the seeds of its own destruction." He terminated the American offensive biological weapons program and began championing a British proposal that called for an international treaty to ban biological weapons, an effort that resulted in the Biological Weapons and Toxins Convention and Treaty of 1972. Since then, 140 states have signed the treaty agreeing to halt research directed at the offensive use of biological weapons.

The high hopes for this treaty were smashed when both the United States and Soviet Union interpreted the treaty in such a way as to allow ongoing research on more than 200 projects. The failure of the treaty was vividly and tragically demonstrated in April, 1979, when an anthrax outbreak at a military microbiology facility in the Soviet Union killed about 70 people.

The end of the cold war failed to end the threat of biological weapons. Because they are deadly, cost-effective weapons to produce—a major biological weapons program requires only about \$10,000 worth of equipment and a 16x16 square-foot room—biological weapons became a weapon of choice for international terrorists. Domestic as well as

foreign terrorist organizations have been caught attempting to unleash anthrax upon innocent civilians. In the 1990s, the Japanese terrorist cult that attacked the Tokyo subway system with sarin gas, also released anthrax on Tokyo near the imperial palace, the legislature, and a foreign embassy. Fortunately, no one was injured.

What these terrorist groups or nations could not produce themselves, American companies have been ready to provide.

According to a 1994 Senate report, private American suppliers, licensed by the U.S. Department of Commerce, exported biological and chemical materials to Iraq from 1985 through 1989. Newsday reported that one American company alone made 70 shipments of the anthrax-causing germs and other pathogenic agents to Iraq in the 1980s.

Mr. President, I find it unfortunately ironic that American companies were supplying anthrax to a nation with which, just a few years later, we were at war, thus forcing American soldiers to face the prospects of encountering those same germs on the battlefield. I find it tragically ironic that American companies were selling anthrax to a country that the State Department now includes on its lists of states that sponsor terrorism—a nation that may now be participating in anthrax attacks upon the United States.

I realize that Iraq had been at war with Iran, and Iran was our bigger enemy at the time. Therefore, it may have served our military and political interests to have been shipping supplies of anthrax to Iraq. But, I have to ask, shouldn't we have been a little more careful about which countries we supplied with such potentially deadly weapons? We realized the danger in the proliferation of nuclear weapons. Why shouldn't we have been as vigilant with biological weapons? We may now be paying the price for our negligence!

I also realize that this is hindsight, and, as they say, hindsight is twenty-twenty. The worst private's hindsight, they say, is better than the best general's foresight.

We have recently had foresight—warnings that have been ignored.

A short time ago, the U.S. Commission on National Security/21st Century, referred to as the Hart-Rudman Commission, pointed out:

biological weapons are the most likely choice of means for disaffected states and groups of the 21st century.

Two years ago, in testimony before the Senate Foreign Relations Committee, CIA Director George Tenet pointed out:

There are a number of terrorist groups seeking to develop or acquire biological and chemical weapons capabilities. Some such groups—like Usama bin Ladin's—have international networks, adding to uncertainty and the danger of a surprise attack.

Last April, the State Department, in its "Patterns of Global Terrorism," pointed out:

Most terrorists continue to rely on conventional tactics . . . but some terrorists—such as Usama bin Laden and his associates—continue to seek chemical, biological, radiological, and nuclear capabilities.

There were plenty of warnings that an archenemy of the United States, an archenemy determined to kill as many Americans as he could, could well unleash this ancient scourge upon America.

Who among us could have truly comprehended beforehand the horror of September 11? It is difficult enough to understand even after the fact.

But if history teaches us anything, it is that we should never underestimate the enduring power of evil. No science fiction writer ever wrote of anything as horrible as the Nazi Holocaust. It took an evil madman and his fanatical followers to make it a reality.

Now we are faced with another madman and his fanatical followers. We cannot allow ourselves to ever again underestimate him or others like him.

#### ATTACK ON HAITIAN NATIONAL PALACE

Mr. DEWINE. Mr. President, I want to take a moment—I see my colleague waiting to speak, and I ask him if he will indulge me 5 more minutes—to talk about something that happened very early this morning in this hemisphere that I think does, in fact, affect all of us in this country.

Today we are faced with a very grave situation in Haiti. Early this morning, armed gunmen stormed the National Palace in Haiti apparently in an attempted coup. While the Haitian police have apparently regained control of the building, the violence in Port-au-Prince seems to have just begun.

In apparent retaliation for the palace attack, hundreds of President Aristide's supporters have surrounded the palace wielding machetes and sticks. Recent reports also indicate that supporters have torched the headquarters of the Convergence opposition alliance, as well as other headquarter buildings of the 15-party alliance.

It is also my understanding homes of opposition leaders have now come under attack.

Now, more than ever, it is essential that President Aristide call for peace and push for domestic order. Continued violence and retribution will do nothing but cause further instability and upheaval. Candidly, I fear that Haiti may be ready to implode. President Aristide has an obligation to take his immense popularity and use that popularity to talk directly to the people of his country and make it clear to them and his supporters that taking revenge on people who they think may have been involved in the coup or taking revenge on the parties that oppose President Aristide is not in the best interests of Haiti. He has an obligation to

do that, and I call upon him to do that and to help stop the violence.

As my colleagues well know, Haiti's political system has been in turmoil for quite some time. The most recent crisis stems from last year's contested elections. After 17 visits to the country by the mediator appointed by the Organization of American States, there has been no agreement yet reached.

Both the Haitian Government and the opposition coalition continue to avoid a compromise. Both the opposition parties and the President of Haiti have an obligation to go further than they have gone to try to work out their differences. They need to do that for the benefit of the impoverished people of Haiti. Ultimately, it is the Haitian people who suffer from this continued dispute.

Today we are faced with a country of about 8 million people who grow more and more impoverished, if that is possible, with each passing day. Haiti is already by far the poorest country in the hemisphere. We are faced with a country whose poverty and instability continue to deepen.

This despair has erupted into violence, violence that threatens the very stability of the Aristide government. That is why it is especially important Mr. Aristide and the Haitian Government show leadership and push for order in Port-au-Prince.

I urge Mr. Aristide not to condone further violence or retribution. I also urge anyone who is trying to stage a coup to respect the popularly elected Government of Haiti.

I also urge Mr. Aristide to move forward with OAS efforts to bring an end to Haiti's continued political crisis and bring about positive change. Similarly, I encourage the opposition coalition and its followers to show restraint and work toward a peaceful solution.

I conclude by saying the United States continues to be a friend to the Haitian people. At present, there are no holds on bilateral and U.S. humanitarian assistance to the Haitian people and we are, in fact, providing over \$55 million this year alone. There is, however, other money that is being withheld. The American Development Bank, for example, this money will continue to be withheld until there is a political settlement in Haiti, a settlement that must take place. Until the Haitian Government calls for an end to violence, including today's retribution, and distances itself from the kidnappings, political killings, and corruption, then innocent Haitian people will continue to suffer.

I thank my colleague for allowing me to proceed. I have spoken many times about the situation in Haiti. I will continue to do so. I am planning to actually travel to Haiti next month. This is a situation that ultimately is of grave concern to the United States, but ultimately we must realize, as the people