



The Pipeline

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AMHERST AND THE CONNECTICUT RIVER VALLEY -

For the second time ILS meets in Massachusetts. In 1973 the Arnold Arboretum with its world-famous collection of lilacs at Jamaica Plain was the site of our second convention. This year our host is Amherst College at Amherst in the beautiful Connecticut River valley. We shall visit Lilac Land, the home of Albert and Mabel Lumley to partake of their gracious hospitality and to admire their extensive lilac collection begun in 1939, oldest of American private collections. Al, second recipient of ILS Honor and Achievement award, is a member of ILS board of directors and is chairman of this sixth convention.

Amherst, commemorating Lord Jeffrey Amherst, governor general of British North America, 1760-63, is a small New England town with three colleges (Amherst, University of Massachusetts, and Hampshire) situated on an alluvial terrace above the central portion of the Connecticut River valley. This whole region reeks in history, Colonial history. Last year being the bicentennial anniversary of the Declaration of Independence the Daily Hampshire Gazette published a 76-page Bicentennial Edition recounting much of the history of each town in Hampshire County. Fur trappers, it seems, were the first white men to penetrate the region. They came up the river from Long Island sound. In 1653, Nonotuck, now Easthampton, was settled through purchase from Chief Chickwallop and six others for 100 fathoms of wampum (that is, string of polished shells), 10 coats plus small gifts with the reservation of hunting and fishing rights plus 16 acres at Hadleigh for ploughing. Much of the first century of settlement was interrupted by skirmishing with the Indians. However the early settlers did establish a thriving agriculture in this fertile valley. Also we shall see that they brought with them lilacs for their dooryards and gardens.

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For the town of Amherst, education the leading 'industry'

AMHERST — More than a college town, Amherst is dominated by an education industry, with the University of Massachusetts making a city within a town.

UMass has the tallest library in the world, at 27 stories, and the five towers of the Southwest Residential College provide a city skyline for a campus of some 25,000 students, approximately twice the town's residential population, and twice the size of the university itself 10 years ago.

In contrast to the stark modern architecture at UMass by Marcel Breuer, Edward Durell Stone and Hugh Stubbins, the town center retains a typical New England common and many gracious old homes.

Amherst College, founded in 1821 as a divinity school, has become a leading liberal arts college. Last fall, the college began a transition to coeducation which will eventually result in half of its 1,200 students being female.

In South Amherst, Hampshire College opened half a dozen years ago to provide its 1,200 students with an alternative to traditional education.

The university's dramatic expansion in the last 10 years has changed the face of Amherst; developments have sprung up on land that was formerly in agriculture. Only 20

years ago, Amherst had more dairy cows per capita than any town in Massachusetts.

AGRICULTURE was the main occupation when the first settlers arrived here to settle what was then known as Hadley's Second Precinct.

Although Amherst did not become a town until 1786, its designation as a district in 1759 made it an independent community, with all the privileges of a township except sending a representative to the General Court of the Commonwealth.

Amherst acquired its own name when it became a district, although Lord Jeffrey Amherst, a British general in the French and Indian Wars, never passed through here and more than likely never heard of the town named in his honor.

Amherst did not suffer the Indian massacres that neighboring towns endured. The local Indians were nomadic river tribes, who probably never even camped here.

Internal strife marked Amherst during the Revolution. Some of the leading citizens were Tories, including the minister of its first church, David Parsons. Dissension between the "Patriots" and the "Tories" eventually dismembered the young church and a new church,

"The Second Church of Amherst," was built on East Street.

The town was made up of district village centers, with the eastern village the stronghold of the Patriots, who were mostly the less well-to-do farmers, while the western village, now the town center, was dominated by the wealthier conservatives, who were Tories.

Some 150 men from Amherst fought sporadically in the Revolution, for periods ranging from 11 days to three years. Two local men rose to prominence, Capt. Reuben Dickinson and Lt. Ebenezer Mattoon, who later became an adjutant general.

AFTER THE WAR, in 1787, almost as many men took part in Shays's Rebellion as had served in the Revolution. One hundred thirteen Amherst men joined Daniel Shays of Pelham when he stormed the Springfield arsenal and the courthouses to protect high taxes and fines and imprisonment for those who couldn't pay.

Early in the 1800s, Amherst Academy was built, marking the beginning of Amherst's long history as a center for education. Half the students who attended the school on Amity Street were from out of town.

A separate school for girls, the Amherst Female Seminary, was built in 1824. Almost 200 young women attended the school in the town center, some coming from the western territories and the southern states.

When the seminary burned in 1838, Amherst Academy again accepted women, among them its two foremost pupils, Emily Dickinson, the Amherst poet, and Mary Lyon, founder of Mount Holyoke College.

Mount Pleasant Classical Institute, a huge porticoed and pillared building, was the next Amherst school, although it burned shortly after its founding. Henry Ward Beecher was a student there.

INDUSTRY ONCE flourished in Amherst. The Mill and Fort rivers provided water power for saw mills and grist mills in colonial days. Later, in the mid-nineteenth century, carriages, wagons and sleds were produced here at the rate of 75,000 per year.

Amherst brickyards once produced four million bricks per year from clay pits located at the site of the present Amherst Fields development.

Six textile firms made use of the water power in Factory Hollow, North Amherst, but they were all

wiped out in fires by the mid-1800s.

Amherst reached its industrial peak with the wholesale production of palm leaf hats. Women had made them in their homes, but later, the industry moved to lower Main Street to be near the railroad station. Two rival companies, L. M. Hills & Co. and the H. D. Fearing Co., later George B. Burnett & Son, employed nearly 600 workers between them. Hat production flourished until the 1930s.

Beginning with Noah Webster in the 1820s, author of the famous dictionary bearing his name, Amherst has been the birthplace or home of many famous artists and writers.

Emily Dickinson was born in the mansion on Main Street where she lived in seclusion and wrote some of the greatest poems in the English language. Eugene Field, the author of children's verse, spent his boyhood in the large white house on the corner of Amity Street and Lincoln Avenue. Helen Hunt Jackson, the author of "Romona," lived here, as did Ray Stannard Baker, better known as David Grayson, who won a Pulitzer prize for his biography of Woodrow Wilson.

Amherst's best known literary figure today is probably Robert Francis, the poet, who makes his home in North Amherst.

The Connecticut becomes lifeblood of county and area

By LAUREN McCARTNEY

EONS AGO, there was no river. The newly upthrust Holyoke Range bounded a swamp where dinosaurs grazed on water plants. When the valley began to cool, the dinosaurs fled south before a wall of ice, leaving tracks in the mud. Their three-toed footprints can be seen today along the rocky shore of the river in Holyoke and in the Granby quarries.

Fifteen thousand years ago, still before the age of man, the ice began to melt. Over thousands of thousands of years, the ice receded from Saybrook, Conn., to Middletown, where a great dam had formed from the glacial rubble and meltwater backed up behind it.

Nearly 6,000 years later, the waters reached Northampton and eventually spread all the way to Norwich, Vt., 150 miles from Middletown. The dam burst about 9,000 B.C., the lake level dropped 90 feet, and the southern end of the river was born. As a string of glacial lakes merged, the river reached its full length of some 400 miles.

TODAY, the Connecticut River is the longest in the Northeast, sweeping from the Canadian border to the sea. It marks the line between Vermont and New Hampshire and lends its name to this region: the Connecticut River Valley.

It was the Indians who named it the Quonekticut, or "long tidal river," because it rises and falls with the tides for some 60 miles, from its mouth at the Long Island Sound to the Enfield, Conn., rapids.

The river Indians — Nipmucks, Podunks, Nawaas, Mohicans — had all they needed in this valley: fertile fields enriched by annual spring floods, abundant game, and fish. In the spring, the river was thick with Atlantic salmon and shad returning to their freshwater spawning grounds.

In 1614, the Dutch explorer Adrien Block slipped his small boat over the sandbar at the mouth of the river, and traveled north to the Enfield rapids.

The first white man ever to see the river, Block named it De Versche Riviere, the Freshwater River. But the name, like the Dutch, did not stay.

The Dutch set up a profitable fur trading business with the Indians, and established several forts, but they were not interested in settling here.

Ironically, it was the Indians themselves who ended their thousands of years of harmony with the river by inviting the English to come here.

Armed with samples of the river's bounty, the Indians made two trips to the Bay Colonies of Boston and Plymouth to induce the white men to come to the valley. The Indians thought the colonists would be their allies against the warlike Pequots, who had taken their land.

Little did the Indians know that they were setting the stage for a life and death struggle with the white men over the valley land. The conflict would drag on for a century, and end in defeat for the red men.

COLONISTS FROM PLYMOUTH were the first to accept the challenge of settling here. They built what was probably the first prefabricated house in the country, put it on a new-made boat, and set sail Sept. 26, 1633.

With their Indian guides on board, they proceeded up the Connecticut River, past a sign claiming the river for the United Netherlands and past a Dutch fort, where soldiers shouted warnings, but failed to fire the two cannons.

They landed at Windsor, Conn., where they built a palisade, or fort. Their trek to this valley marked the first step in western migration that was to span the continent.

The fort was of Indian design. The Indians taught the settlers to drive long logs into the ground and strap them together. They also taught them to plant corn and tobacco, and fertilized the fields with fish heads.

At first the English found their greatest difficulty was with the Dutch, who coined a derisive nickname for the intruders:

Yankee. The Dutch word "Janke" means rascal, or brigand.

But the Dutch were gone 20 years after the first English settlers arrived. They had received virtually no support from their government, and the Connecticut Yankees were arriving in droves.

The English were deserting the rocky shores of eastern Massachusetts for the deep alluvial meadowlands of the valley.

Spreading north along the river from the first settlements in Connecticut, the early settlers arrived in Northampton in 1654 and in Hadley five years later.

The river determined the pattern of early settlement. The best lands were those replenished by the spring floods, and for the most part land along the river was cleared. The Indians annually burned away the underbrush to cultivate maize and tobacco, and for a time they worked alongside the English, who had bought their land for lengths of wampum, or polished shells.

But as the Indian began to feel crowded out, conflict erupted. The Indians stole, burned barns, murdered, and finally massacred whole towns.

Not only local tribes did the killing, but also hostile bands from upriver and Canada who were aided by the French.

THE DEERFIELD MASSACRE in 1704 was one of the bloodiest in the Northeast's history. Forty-nine men, women and children were killed and 109 captives were marched to Canada.

The land's bounty drew first settlers to the valley

By LAUREN McCARTNEY

It was the land and its bounty that drew the first settlers to the valley.

The Indians made two trips to the Bay Colonies to convince the white men to settle along the Connecticut River, bringing samples of the crops and game that flourished here. They even offered to subsidize the colonists in Plymouth and Boston by giving them corn and 18 beaver skins per annum. In return, the peaceful, nomadic river tribes hoped for protection against the fierce Pequots.

But the Indians had not reckoned on the white man's territorial instinct. The settlers divided the land, put up fences and frightened off the native game. As word of the rich soil here spread back to the eastern coast of the colony, more and more white men came.

They have been here ever since, farming some of the richest land in the country.

The flat, fertile valley trough stretches from South Hadley to Northfield. It was annually replenished by spring flooding in the early years; there were rich grazing and pastureland, wild orchards and abundant game, and fish from the great Connecticut River. Although farm acreage has shrunk dramatically in recent years, farming in Hampshire County produced \$12,500,000 worth of crops, dairy products and livestock last year.

Northampton was the first settlement in what would later become Hampshire County. Land speculators from Springfield purchased it from the Indians in 1653 for 100 fathom of wampum, or shells, 10 coats and some small gifts.

For a time, the Indians continued to live on the land they had sold, teaching the early settlers to raise maize and tobacco. Before the Mill River grist mill was built, probably in 1660, the settlers pounded corn in primitive mortars, as the Indians did.

VARIN'S LILAC -

The lilac which makes my spring come alive is quite unobtrusive. Slender arching branches clothed in masses of tiny florets and finely textured foliage, it blooms along with the familiar French hybrids, yet does not compete. Once you learn to recognize this lilac, I'm sure you too will come to admire its charm. I am speaking of the first hybrid lilac, the lilac which arose "naturally" in the botanical garden at Rouen two hundred years ago and was distributed by the garden's director, Monsieur Varin, hence the name Rouen lilac or simply Varin's lilac.

Varin made no artificial crosses. In 1777 and for a number of years afterwards he sowed seeds of the cut-leaved Persian lilac, which always produced seedlings intermediate between the Persian lilac and the common lilac, both species being present in the garden and blooming at the same time. Although Mons. Varin believed, according to his day, that the cut-leaved Persian lilac was a "degenerate variety" (because the seedlings did not "come true"), we now know that he was dealing with seed which had been pollinated by the common lilac.

This beautiful lilac has traveled under a number of aliases. I am reminded of Aristotle's dictum, "the least initial deviation from the truth is multiplied later a thousandfold". A certain Herr Schmidt, in 1794, referring to this charming plant, called it Syringa Chinensis, and Willdenow, in giving it botanical status two years later, accepted the name without question. There have been other scientific names by which Varin's hybrid has been known, some eight or more epithets in all, including rothomagensis, but the scientific name is stabilized to Syringa X chinensis of Willdenow.

Mrs. McKelvey has apostrophized Varin's lilac in her monograph, The Lilac (1928), and I quote :

"This lilac is one of the handsomest of all garden shrubs and if given sufficient room to develop forms a well-filled, large, somewhat hemispheric bush. The plant has not the upright, tall habit of S. vulgaris, the branches are less heavy and in winter the plant appears more "twiggy"; in this respect, as well as in most other characters, it more nearly resembles the parent S. persica. While the foliage is considered to be intermediate between the parent plants, yet in size and form it is closer to that of S. persica and frequently shows a tendency to produce lobed leaves. Nor do the flower clusters show so great a resemblance to those of the common lilac as to those of the Persian. The individual panicles are small, only about three or four inches long, but they are produced frequently from as many as eleven pairs of lateral buds on the same branchlet and appear as one immense inflorescence, so heavy sometimes that the flowering branchlet droops gracefully under the weight. The plant blooms profusely each year -- around Boston between the middle and end of May. The flowers have no strong fragrance as those of the common lilac. The individual blossom has a long, slender corolla-tube and broad, somewhat bluntly pointed, cucullate corolla-lobes which curl backward after they have been expanded for a short time: the (purplish) expanded flowers are paler without than within and the (yellow) anthers may be seen in the open flower. The foliage unfolds early in the spring and in autumn sometimes turns a pale yellow before falling."

Varin's lilac produces fruiting capsules infrequently, and, when it does the resulting seeds are seldom viable. However, a number of seedling varieties have been raised, especially by the Lemoines over a period of 50 years. The first notable lilac offered by Victor Lemoine was the distinctive violet-eyed 'Bicolor' in 1853. 'President Hayes' with metallic violet flowers in large florets appeared in 1889. In 1896 Emile Lemoine proved the hybrid origin of S. chinensis by obtaining a semidouble 'Duplex' from the cross of S. persica and a double-flowering form of S. vulgaris. Three years later 'La Lorraine' appeared being acclaimed more floriferous. And in 1903 another semidouble (doubling being a Lemoine objective) 'Le Progres' was offered. It was the last of Lemoine's S. chinensis introductions.

The nurseryman, Simon-Louis of Metz, in 1871, offered the sporting 'Metensis' with its rose lilac florets. Audibert, in 1817, introduced the white flowered form 'Alba'. This cultivar when grafted on the common lilac stock has produced a chimera, known as S. + correlata. However the most striking clone of S. chinensis was introduced by Mons. Varin's son-in-law, Mons. Saugé, a Parisian florist, in 1830, under the name 'Saugeana'. This latter is a dark reddish flowering form which itself has acquired a number of common names, among them "red rothomagensis". (See article on "Lilac Phenology" elsewhere in The Pipeline.)

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LILAC PHENOLOGY -

Phenology is the study of the timing of biological events and their relationship to seasonal climatic changes. The term comes from a Greek word meaning "to show" and "to appear". The growth stages of plants are called phenological events, and they correspond to periodic events in the animal kingdom, such as bird migration, animal hibernation, or insect emergence.

The lilac is an important tool in a phenology research project presently active in many of the Northeast and North Central states and in several provinces in Canada. This project, started in the mid-1950's, is financed jointly by regional research funds from the USDA and by cooperating state agricultural experiment stations.

Over 700 cooperators are observing lilac plants originating from a single clone supplied by the Plumfield Nursery, Fremont, Nebraska. Because the leaders of the project are basically agriculturists and meteorologists, not lilac experts, a problem arose in early description of the plant -- it was called "Persian lilac (Syringa persica) cultivar Red Rothomagensis". Now we find that it apparently is a cross between Syringa persica and Syringa vulgaris, raised by Varin and introduced by the Rouen Botanical Garden about 1777, or 200 years ago. Thanks to some detective work by Bob Clark, we have learned that we are working with "the dark flowered cultivar technically known as 'Saugeana', but by certain growers 'Red Rothomagensis'". It is properly written: Syringa x chinensis 'Saugeana' or cv. Saugeana, or simply Syringa 'Saugeana' or the 'Saugeana' lilac.

LILAC PHENOLOGY cont'd -

For each of their 3 plants, observers in the cooperative project record the dates of first leaf, when the widest part of the newly emerging leaf has grown beyond the end of its opening winter bud scales; first flowers, when the majority of the flower clusters have at least one open flower; full bloom, when most of the flower clusters no longer have any unopened flowers; and end of bloom, when at least 95% of the flowers have withered or dried up.

Most of the states have coordinators who maintain contact with cooperators in their state. Prof. Richard J. Hopp at the University of Vermont is the sparkplug who started the project nearly 15 years ago, and he served as the project leader until his retirement a couple of years ago. The new coordinator is Dr. M.T. Vittum, New York State Agricultural Experiment Station, Geneva, NY 14456. Feel free to contact him if you have any questions. (He described the project at the first meeting of the ILS at Rochester, NY, in May 1972).

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PHENOLOGICAL NOTE -

"For the first year on record," Dick Howard of the Arnold Arboretum reports, "a great many lilac inflorescences were aborted" last spring (1976). Dick attributes this phenomenon to "anomalous weather conditions" citing that "moderate and above-average temperatures occurred early in the spring, climaxed by one week in April with subfreezing temperatures on a Monday followed by a weekend with temperatures in the nineties, and then cooler weather."

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cv. 'Red Rothomagensis' - REGISTRAR'S COMMENTS. Freek Vrugtman.

In two separate anonymous articles appearing in this issue of the PIPELINE, namely "LILAC PHENOLOGY" and "VARIN'S LILAC", reference is made to the lilac clone and cultivar Syringa x chinensis 'Red Rothomagensis'. In these two articles it is suggested that S. x chinensis 'Saugeana' is the valid cultivar name and that 'Red Rothomagensis' is a synonym or a common name or both.

S.D. McKelvey, in THE LILAC (1928), pp. 421-425, reviews the history of S. x chinensis 'Saugeana'. It must be recognized that this taxon came into being nearly 150 years ago; the name may have been applied to plants which may or may have not arisen independently at another time or place, we cannot be sure of that; the synonymy listed by McKelvey indicates that this question has not been answered satisfactorily and probably never will be answered. In other words, what is grown today under the name of cv. 'Saugeana' is not necessarily a clone.

cv. 'Red Rothomagensis' - REGISTRAR'S COMMENTS cont'd -

R.J. Hopp and B.O. Blair in Plant Phenology in Eastern and Central North America, Bulletin 677, Agric. Exp. Stn., Univ. of Vermont, Burlington, Vt., Sept. 1973; p. 6, provided information on the history of *S. x chinensis* 'Red Rothomagensis'. Since the lilac clone 'Red Rothomagensis' is currently used as the major indicator plant in an international study (see the article on LILAC PHENOLOGY), since it is essential that only clonal material be used for this study, and since the cv. 'Red Rothomagensis', unlike cv. 'Saugeana', appears to be not readily available from commercial sources, it would be unwise to introduce a synonymy which may lead to confusion and which may jeopardize the genetic uniformity of the lilac material used for the phenology study.

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MIDWEST VICE-PRESIDENT Lourene Wishart of Lincoln, Nebraska, continues to promote lilacs. Again this year she is participating in the Bicentennial Cascade Fountain Festival on Thursday, May 12th, at the Radisson Cornhusker Hotel ballroom. Last year's event attracted some 5000 visitors from Nebraska and surrounding states. Lourene's exhibit, entitled "Lilac Time Patio Luncheon", features fresh lilacs on a spotlighted table in lilac and white colours. A 30 inch by 56 inch glass topped table with lilac wrought iron legs is covered with a floor length heavy satin lilac cloth overlaid by a sheer French white silk embossed organdy. The centerpiece, of course, is cut lilacs displayed in a low clear glass bowl with serpentine rim. The whole display is shaded by a lilac-coloured parasol. This event, according to Lourene, "gets lilacs across, and how!"

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