THE

# **AMCHEM**

NEWS

VOLUME 6-No. 1

**MARCH 1963** 

## AM-Gems

A great power that refuses to use its power for its own protection is destined to lose

Good management consists in showing average people how to do the work of superior people.

John D. Rockefeller

There is no more miserable human being than one in whom nothing is habitual but indecision

William James

The rung of a ladder was never meant to rest upon, but only to hold a man's foot long enough to enable him to put the other somewhat higher.

Thomas Henry Huxley

He who would distinguish the true from the false must have an adequate idea of what is true and false.

Benedict Spinoza

Those who stand for nothing are apt to fall for anything.

The American Citizen (Newspaper)

There is not the slightest danger that humanity will put up indefinitely with any scheme which involves thoroughgoing regimentation. It is not human nature to tolerate this. There are too many potential Patrick Henrys, and they will continue to reproduce.

Roger J. Williams

Truth as old as the hills is bound up in the Latin proverb, "Necessity is the mother of invention." It is surprising what a man can do when he has to, and how little most men will do when they don't have to.

AMCHEM PRODUCTS, Inc.

Ambler, Pennsylvania in the Interest of AMCHEM **Employees and Their Families** 

William A Drislane

#### On Our Cover

George Williams, chairman of Plant Christmas Party, emc'd the event with all the aplomb of T.V. personality Bert Parks. So professional and relaxed was George's bearing that we felt the picture would make a good cover.

#### Dr. A. R. Cooke Appointed Director of ACD Biological Research

s of January 1 of this year, Dr. Anson Richard Cooke has been appointed Director of Biological Research, Agricultural Chemicals Division. This is a newly created position at Amchem.

Dr. Cooke's responsibilities include direction of all biological re-



Dr. A. R. Cooke

search projects carried out at the Farm. the selection of compounds for screening, and the supervision of all personnel connected with projects conducted at the Farm. In his present capacity he will report directly to Robert Beatty, Director of ACD Research and Development.

Dr. Cooke comes to Amchem directly from Esso Research Laboratories, Linden, N. I. Previous to this he was connected with the Research Laboratories of the Du Pont Company, Wilmington, Dela-

ware, for six years. He also was assistant professor of plant physiology, Oklahoma State University, Stillwater, Oklahoma, for two years.

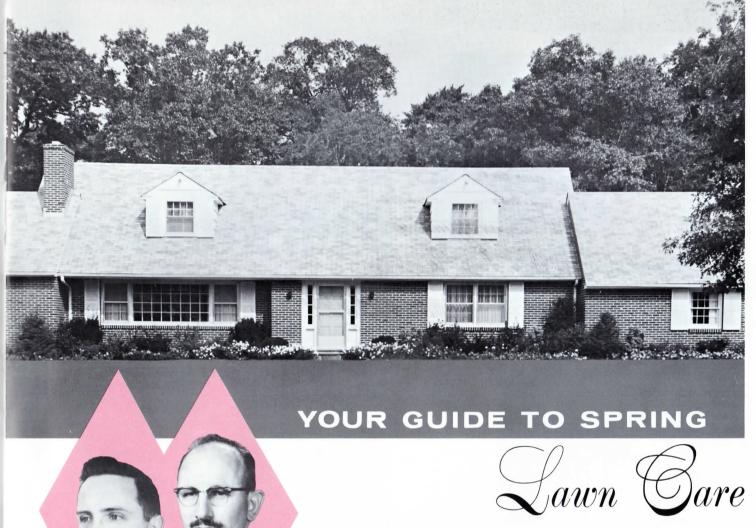
Dr. Cooke received his B.S. in plant physiology in 1949 and his M.S. in 1950, both from the University of Massachusetts, Amherst. He obtained his Ph.D. from the University of Michigan, Ann Arbor, in 1953. He served in the Marine Corps for two years during World II in the

A native of Lawrence, Mass., Dr. Cooke presently lives in West Chester, Pa., with his wife Catherine and the couple's four children: Paula, 9, Anson, 8, James, 5, and Dwavne, 9 months.

#### The Art of Getting Along

Sooner or later, a man, if he is wise, discovers that life is a mixture of good days and bad, victory and defeat, give and take. He learns that it doesn't pay to be a too sensitive soul; that he should let some things go over his head like water off a duck's back. He learns that he who loses his temper usually loses out. He learns that all men have burnt toast for breakfast now and then, and that he shouldn't take the other fellow's grouch too seriously. He learns that carrying a chip on his shoulder is the easiest way to get into a fight. He learns that the quickest way to become unpopular is to carry tales and gossip about others. He learns that buck-passing always turns out to be a boomerang, and that it never pays. He comes to realize that the business could run along perfectly well without him. He learns that it does no harm to smile and say, "good morning", even if it's raining. He learns that most of the other fellows are as ambitious as he is, that they have brains as good or better, and that hard work, not cleverness is the secret of success. He learns to sympathize with the youngster coming into the business because he remembers how bewildered he was when he started out. He learns not to worry when he loses an order, because experience has shown that if he always gives his best, his average will break pretty well. He learns that no man ever got to first base alone, and that it is only through cooperative effort that we move on to better things. He learns that bosses are not trying to get the last ounce of work out of him for the least amount of pay, but that they are usually pretty good fellows who have succeeded through hard work and who want to do the right thing. He learns that folks are not any harder to get along with in one place than another, and that the "getting along" depends about ninety-eight percent on his own behavior.

> Vapors, V.A. Hospital Livermore, California



DICK OTTEN

JOHN GALLAGHER

HE OUTLINE that follows might be called the Dale Carnegie course in Turf Management, or "How to Win a Good Lawn and Influence Neighbors.

Each spring we get phone calls, notes, or are stopped in the hall by Amchem employees with questions about the care of home lawns. So, to answer these people, as well as those employees who don't know where to get the information they want, we have written in capsule form this "book" on lawn care.

We will start off with a glossary of some of the words used in the article that might not be thoroughly understood by all readers.

#### Glossary

#### 1. Soil test

For a small fee (\$1.00), a complete

#### By John Gallagher and Dick Otten, ACD Research

soil analysis will be done for you by Pennsylvania State University. Contact the County Extension Agent's office in Norristown (Montgomery County) or Doylestown (Bucks County). Or, many large garden stores offer a free "quick test" that can pick up obvious deficiencies in vour soil. Recommendations for additions of lime or fertilizer will be made by the Extension Service or the store.

#### 2. Complete fertilizer

A fertilizer containing the basic growth nutrients of nitrogen, phosphorus and potassium (potash). Usually identified by the nutrient percentage; i.e. 10-10-10, 10-6-4, 5-10-5 etc.

#### 3. Organic fertilizer

Slow release, long-acting fertilizer either natural or synthetic. Natural organic fertilizers are usually sewerage by-products such as Milorganits or Armorganic. Synthetic organic fertilizers are the ureaform products such as DuPont's Ureaform and Hercules Nitroform.

#### 4. Mulch

Straw, salt hay, or burlap.

#### 5. Broadleaf weeds

Weeds such as dandelion, plantain, chickweed.

#### 6. Pre-emergence

Application of chemical before weeds germinate; generally refers to crabgrass

#### 7. Post-emergence

Application to weeds after they germinate, while they are growing actively.

#### 8. Permanent grass

A perennial grass such as common Kentucky bluegrass, Merion, Chewings fescue, Illahee fescue, Pennlawn fescue.

K-31 tall fescue – a coarse bladed grass. Can be used for backyard lawns subject to hard wear. It should be planted alone or in a bluegrass mixture of 70% tall fescue, 30% bluegrass.

Avoid the cheap seed mixes sold in super markets and discount houses. These mixtures will contain high proportions of undesirable seeds such as annual and perennial rye grass, red top, timothy and small percentages of tall fescue.

#### I Building New Lawns— March, April, August, September

A. Preparation-More time and effort spent in lawn preparation pays off in later years with a better lawn that is easier to maintain.

Continued on page 14



RIII ALIEN

RUSS BISHOI

LYNN CUMMING

Walt Dudlik preparing a new formulation for the 1963 Research Program at the Farm.

# AG. LAB. BIRTHPLACE of HERBICIDES

HERE's a little "isolationist" group of chemists and technicians quartered among the assorted buildings and drum racks that comprise what's known as the "Amchem Plant Area". Entrance to and egress from their quarters is via the gate at the lower end of the parking lot. Occasionally one finds a new face in the group, but most likely it belongs to an addition, not a replacement, for the personnel of the Agricultural Chemicals Research Laboratories is a pretty stable, low-turnover bunch. Sole charter member is Don Small, whom you've met already through past issues of the NEWS. When Amchem first entered the field of agricultural chemicals, its laboratory staff consisted of one man, Don.

Don's first assignment was making chemicals that would stimulate the root growth of plants, prevent the premature fall of fruit from trees, and regulate the growth activities of plants. So efficient were these early chemicals that most are still being synthesized in the ACD Research Laboratory Pilot Plant. When Don went into the Armed Forces, Joe Leper took his place in February, 1942. Joe retired as head of ACD laboratory operations in April, 1958 and is living on the island of Majorca in the Mediterranean.

Three years after the establishment of the ACD Research Laboratory, Russ Bishop, present Chief Chemist, joined Amchem. Russ was followed three years later by Bill Allen, Senior Research Consultant. This trio was the nucleus of a

Personnel of ACD Research Laboratory, Back row (l. to r.): Aleksanders Bergs, Paul Caruso, Lynn Cummings, Gene Fox, Russ Bishop, Jake Landis, Joe Angelichio. Front row (l. to r.): Jim Esposito, Don Small, Walt Dudlik, Harvey Raman. Inset: Al Tindall.



small group that has since proliferated into a tri-functional, 12-man organization whose duties are divided into 1) Research, 2) Production and Control, 3) Formulation. Each has its own laboratory.

The personnel in the first group (Research) are responsible for producing chemicals, either new or previously unscreened, which in their judgement possess marketing potentiality either as herbicides or plant growth regulators. It is also this group's function to devise efficient procedures for the synthesizing or manufacturing of any chemicals which prove to have sales possibilities. Another responsibility entails the constant striving for improvement of analytical methods employed in the lab. Synthesizing chemical compounds for ACD Research Director Bob Beatty's biological staff, for Amchem's Patent Department and for a few select outside sources is also done by this laboratory.

The beaker-burner, pour-and-mix end of these sundry operations falls on the white coated shoulders of Chemists Harvey Raman and Paul Caruso, and Chief Chemist-Supervisor Russ Bishop.

The name of the second group—Production and Control—is definitive of the work done by this group. Production synthesizes all ACD chemicals in amounts of from one pound to 10,000 pounds. The latter is the total yearly poundage capacity of the ACD Pilot Plant, which is attached to the Laboratory. All raw chemicals, as well as those in the intermediate and finished stages are analyzed by Control. Customer complaints are handled through this laboratory.

The "wheels" which keep Production and Control rolling are Chemists Jake Landis and Jim Esposito, assisted by Chemical Operators Joe Angelichio, Aleksanders Bergs and Gene Fox. This crew also operates under the supervision of Russ Bishop.

Converting biologically active chemicals into usable form is the function of the third group—Formulation. The importance of this work can best be appreciated when it is realized that many of these chemicals in their original state are water insoluble powders and therefore would be useless to farmers and other users in the powdered form. An example of this conversion is the impregnation of granules with the powder.

As described in an article in the June 1962 NEWS, granules impregnated with an ester of 2,4-D (Amchem AQUA-KLEEN®) were used to kill watermilfoil in Lake Hopatcong and Muscle Shoals.

Formulation is staffed by chemists Don Small and Walt Dudlik, both of whom are directly responsible to Lynn Cummings. Lynn is ACD Chemical Director in charge of all three laboratories. Keeping things spic and span for all the groups is Al Tindall, congenial custodian of equipment.

While the duties of each of the three groups are clearly defined, there are occasions when their services have to be integrated. But so versatile are their capabilities and so cooperative their personalities that these occasions present no problems.

The modern concept of chemical weed killing had its origin right in these laboratories. Among the early herbicides developed were the now world-renowned WEEDONE® 2,4-D and 2,4,5-T.

In the early 1950's, Bill Allen, then Chief Formulating Chemist, discovered the weed killing properties of Amino Triazole, which is marketed under Amchem's trade names of Amitrol and Weedazol.

The latest herbicide development to come from this ACD laboratory source is Amiben, the world's most successful herbicide for use in soybean crops (*Amchem News*, February 1962).

With more and more companies entering the herbicide industry, the staff of Amchem's ACD Laboratories is not content to bask in the reflected glory of its past achievements but accepts these as challenges to do greater things in the future.



Harvey Raman tracing course of chemical compound on a vapor phase chromatograph.



Jim Esposito analyzing a chemical sample newly compounded in ACD Production.



Jake Landis directing Joe Angelichio in the production of a new fruit blossom thinner.

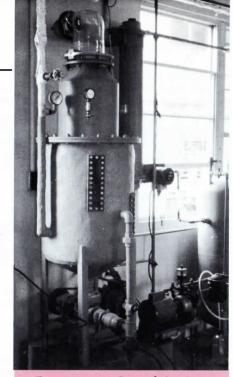
# FENAC STORY

Has Sweet Ending



Roger Billman, Director of Research, Central Aquierre Sugar Co., P. R., holds up sugar cane growing in field.

Hirsh Segal
Goes to
Puerto Rico
for
On-the-Spot
Residue
Study



Evaporator at Central Aquierre Sugar Co. Pilot Plant where Hirsh Segal made test run for residue study on sugar cane in July, 1962.



Centrifuges where syrup and crystals are separated three times. The third stage takes place when no crystals but only molasses remains.

T PRECISELY 1 A.M. Tuesday, July 3, 1962 an anxious analytical chemist was awakened from a fitful sleep by the ringing of his bedside telephone in a remote hotel on the Southern coast of Puerto Rico. The conclusions arrived at during the ensuing phone conversation were put into effect just five hours later at the Central Aquierre Sugar Company, Aquierre, P.R. The caller was Mel Sutherland, who for the past 48 hours had been watching the behavior of the highly sensitive instruments in Amchem's Analytical Laboratory in Building #1. The recipient of the message in Puerto Rico was Mel's co-worker, Hirsh Segal.

Mel had taken up residence in the Analytical Research Lab a few days earlier after having received a quantity of crude sugar samples and information pertaining to them from Hirsh, in Puerto Rico. During this spell Mel took his eyes off the instruments just long enough to grab a "cat nap" now and again on an army cot. At these times he was relieved by Bill Gannon or Dave Clark, a summertime college student employee.

Hirsh had been in Puerto Rico for a little over a week, at the pilot plant of the Central Aquierre Sugar Company, collecting information on Fenac residues at various stages in the processing of sugar cane which had been "spiked" with this new Amchem herbicide.

The effectiveness of Fenac as a weedkiller in sugar cane crops had already been demonstrated. This study was to determine what happens to any residue that might appear.

The information being conveyed by Mel to Hirsh in the telephone conversation of July 3 was the result of the tests conducted by Mel, Sue Gross and Dave Clark from the samples forwarded by Hirsh the previous week.

Although not as complex or as extensive as the major operation, the processing of sugar in the Central Aquierre Pilot Plant duplicated the important stages through which sugar passes in its early refining process and provided the ingredients essential for a satisfactory residue study. There were, according to Hirsh, three complete pilot plant runs.

Here is the Pilot Plant Process as described by Hirsh: "The freshly cut cane is crushed in a hydraulic press and the juice run into steam-heated vats where lime is added in carefully controlled amounts. After heating to a boil, the solids are permitted to settle. The clear juice is pumped into an evaporating kettle while the settled 'mud' remains behind. In the evaporation, about half the water is boiled off. The resulting light syrup is pumped into a vacuum pan where more of the water is boiled off and three successive crops of sugar crystals are obtained. The mass of crystals and liquid is centrifuged to separate the sugar from the molasses." The accompanying pictures depict various phases of the pilot plant operation.

To insure safe transportation of the sugar crystal samples to Ambler, specially constructed containers were prepared and forwarded to Puerto Rico by air freight. These containers were made by Mel, Sue Gross and Dave Clark. Hirsh bedded the sugar crystal samples in dry ice to insure a state of perfect preservation for their trip to Ambler.

The samples when later analyzed in the Analytical Research Lab by Mel and Hirsh showed a decrease of Fenac compared to the amount which had been added during the Puerto Rico runs. And an independent test of sugar cane grown in fields treated with Fenac showed that there was no Fenac residue when tested by a method sensitive to the infinitesimal amount of ONE part per BILLION.

This past Fall the U.S. Department

of Agriculture approved the sale of Fenac for the control of weeds in sugar cane crops in Louisiana and Florida. This authorization climaxes three years of intensive research, laboratory, plant and field studies, and represents the cooperative efforts of Amchem's Amblerbased personnel and its field technicians as well as the valuable assistance given by the research departments of colleges and universities.

The "time-is-of-the-essence" factor and the necessity for round-the-clock-vigilance in certain phases of experimental work is best illustrated by the facts related in the opening paragraph. An uninterrupted program could not have been carried out without a well organized communications plan having been formulated by Mel, Bill Gannon and Hirsh well in advance of Hirsh's trip to Puerto Rico. With success or failure staring you in the face, and perhaps millions riding on the outcome, nothing can be left to chance.

In addition to those already mentioned, other Amchem personnel involved with the Fenac residue program were: Harvey Raman, who helped develop the analytical method; Ken Bridge, who located and arranged for the use of the pilot plant sugar cane mill in Puerto Rico; John Gallagher and Cliff Mitchell, who coordinated the field trials and collection of Fenactreated sugar cane samples; Lynn Cummings, who contributed information about the beet sugar processing industry; and of course, Amchem's Technical Director Al Douty whose guidance was indispensable during the entire program. We are deeply indebted to the Central Aquierre Sugar Company and its director of research, Mr. Roger Billman, for providing the Aquierre pilot plant facilities. We are also most appreciative of the excellent assistance given at all times by Mr. Gonzalo R. Serbia, head of the pilot plant and research laboratories at Aquierre.



Gonzalo R. Serbia, chief chemist and head of Pilot Plant and Research Laboratory at the Central Aquierre Sugar Company, P. R.



Truckload of sugar cane arrives at Aquierre Refinery from plantation.



Sugar cane about to undergo first stage in refining process at Central Aquierre Sugar Company refinery.



When steam in Central Aquierre Pilot Plant runs low, steam locomotive of antique vintage augments supply from siding.

20 years Neilson-Amchem service for Jean Corbyn (l.). E. Davenport makes presentation.



Gabe Mancini (l.) accepts 15-year service award from Jim Roberto (r.). Both of Shipping Dept.



Barbara Emerson admires her 15-year ruby service award presented to her by Bob Beatty. Both of ACD Research.



Mildred Pierson flanked by Treasurer Naylor (l.) and O. M. Sam Caterisano (r.) at 15-year service award presentation.

## Congratulations!

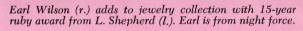
These are the men and women of AMCHEM who have received Service Award Emblems between October 1 and February 1, 1963



Jean Wilkinson

Edward Krueger

Jean Robinson





Jim Farrell (r.) receives 15-year service award and congratulations from Maurie Turner (l.). Both of ACD Sales.



Chuck Wirshing is proud recipient of 15-year award from George Williamson, Both of Niles.



David Dean (l.) accepts 10-yr. award from Gabe Mancini. Shpg. Dept.



Wally Dragani (r.) is presented with 10-year award by Harry Bailey (l.). Both Maintenance.



Greg Gibson (l.) holds his 10-year award after acceptance from Sunny Spruance. MCD Sales.



John Thompson (l.) gets hand shake from Adolf Karcher upon John's completion of 10 years at Amchem's MCD Manufacturing.



Leroy Smith (r.) marks 10 years of service in Maintenance Department and accepts ruby award from Harry Bailey (l.).



Charley Jack (r.) receives his 10-year award from Bob Beatty (l.). Both of ACD Research.



Ed Martin (l.) and Hal Wendorf (r.) are both 10-year Niles men. Hal presents Ed's award.



Frank Pulli (l.) is owner of 10-year award made by Gabe Mancini. Shpg.



It's five years for Lois Johanson, Acct'g Dept. S. Caterisano makes presentation.



Bob Beatty (l.), Stan McLane (r.) look at Stan's 5-year award. ACD Research.



Jean Wilkinson completed five years. Gene Snyder does honors. Purchasing.



Dr. H. Groschopp (seated), Gerhard Collardin, Cologne, Germany, checks itinerary with Warren Weston (r.). Standing (l. to r.) Stig Sasse, Ray Montecino and Joe Dudek—all of Int. Div.





Mr. Vic Rombaut, Tecnimetal, S. A. Brussels, Belgium, relaxes after studying latest list of MCD technical data sheets.



Mr. Richard Underwood (seated, r.) BALM PAINTS Pty. Ltd., Australia, took copious notes on our products during his stay in Ambler. Seated also is Warren Weston. Standing: Greg Gibson (l.), Stig Sasse (r.).



From Japan: Mr. T. Maeda (seated, r.) Nippon Paint Co., Osaka. Seated (l.): Warren Weston. Standing: Stig Sasse (l.), Joe Dudek (r.)—all three of International Division.



Three Japanese visitors (front row, l. to r.): Mr. Yasakazu Ura and Mr. Satoshi Kitahara, Nissan Chemical Industries, Ltd., Tokyo, Japan.(Back):Mr. Jiro Inouye of Nissan's N.Y. office. Others are (l. to r.) Ken Bridge, Willard Snyder and J.O. J. Shellenberg- of Amchem.

# Plant Christmas Party



Best way to carry home a "package" is outside the belt, as demonstrated by Louis Serratore (l.) and Joe Feckno (r.), winners in draw at Christmas party.



George McKinley, Max Zebich, Shirley North, Bob Applegate (clockwise, l. to r.) await main course.



Packaging Department group is serenaded by a local "Lawrence Welk" at mid-meal hiatus.



As part of the ACES (Americans for the Competitive Enterprise System) program a group from the graduating class of Upper Dublin high school visited Amchem recently to learn first hand how industry operates. Included were a plant tour and address by F. E. Wilson, Personnel Director of Amchem.



ACD Research Personnel gathered for group photo after Fall Development meeting: Seated (l. to r.): Dave Fritz, Ken Dunster, Nancy Achuff, Dale Bush. Second row (l. to r.): Roy Johnson, Dick Hart, Bob Beatty, Dick Fosse. Third row (l. to r.): Cliff Mitchell, John Kirch, Russ Bishop, Walt Dudlik. Back row (l. to r): Stan McLane, Dick Otten, Mel Sutherland, John Gallagher. Spring meeting has just been completed.



ACD Research Laboratory Personnel and their families are hosted by co-worker Russ Bishop at outdoor barbecue on grounds of the Bishop home in Hatfield.



Offspring of ACD Research group halt their play activities at the Bishop barbecue long enough to have this picture taken. A few look like their daddies.



First Ambler-to-Niles direct shipment by land-sea method inaugurates non-transfer service between our East and West coast plants. Trailer will not be touched until taken off ship at San Francisco and hooked-up to tractor for short run to Niles. Saves time and money!

(Below) Anthony Della Donna (r.) Amchem Shipping Department, and two unidentified members of Sea-Land Service load trailer with packaged WEEDONE® at Ambler.



#### **ACD Research Personnel** at Weed Conferences

As in former years, the entire ACD research staff attended the three-day Northeastern Weed Control Conference, January 9, 10, 11, at the Hotel New Yorker, New York City. This was the group's 17th Annual Meeting.

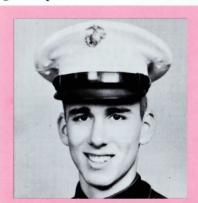
Active participants from Amchem were: Mel Sutherland who read a paper on "Recovery of Absorbed Amiben from Top Soil," at the AGRONOMIC CROPS section; Stan McLane presented his paper on "Measuring Volatility of Herbicides," also at the AGRONOMIC CROPS section; John Gallagher and John Kirch gave the co-ordinating Committee Reports at the AQUATICS and FORESTRY sections respectively, John was Chairman of the Aquatics.

#### Nine from ACD Research **Attend Southern Weed Conference**

With such a pertinent theme as "Herbicides-Their Many Facets," it was to be expected that Amchem would be well represented at the 16th Annual Meeting of the Southern Weed Conference, held at the Admiral Semmes Hotel, Mobile, Alabama, January 16, 17 and 18. Those attending from Amchem were Bill Allen, Bob Beatty, Russ Bishop, Ken Bridge, Lynn Cummings, John Gallagher, John Kirch, Stan McLane and Cliff Mitchell.

John Gallagher presided over the DEVELOPMENTS FROM INDUS-TRY section of which he was Chairman. The opening paper at this session was given by Cliff Mitchell. "Measuring Volatility of Herbicides" was delivered by Stan McLane at the ECOLOGICAL, PHYSIOLOGICAL and EDAPHIC ASPECTS of WEED CONTROL session. This was the same paper Stan read in New York.

There were 57 participating companies in addition to universities and government and state agricultural agencies present.



Pvt. Thomas R. Hablett, son of Edith Hablett, Patent Department secretary, recently enlisted in the U. S. Marine Corps and is under-going his basic training at Parris Island, South Carolina. Tom is a graduate of Hatboro-Horsham High School, Class of 1962. He has three sisters and one brother.

## When Tomorrow is Yesterday

From his motor car memorabilia F. P. Spruance, Sr. drew this series of observations by the late Henry Ford. They were made sometime prior to December, 1924 when they appeared in the Automobile Trade Journal under the title of "Henry Ford's Vision of Tomorrow." It is interesting to check Mr. Ford's predictions with what has actually transpired in the intervening

years. Now read!
"Henry Ford believes that during the next 10 years (i.e., 1924-1934 ed. note) the automobile business will be devoted to refinement – mechanical refinement and convenience refinement. No startling changes in type should be expected. Almost everything affecting essentials has been tried.

'The really revolutionary thing to be looked for is the enlarged uses that will be found for motor vehicles. More than likely city traction will be motorized. Interurban traction also. Motor coaches or stages will popularize passenger travel by 'motor road.' Steam freight will have the long hauls and the bulky loads. Lighter loads and short-haul loads will be generally distributed by motor freight express.

"Traffic problems will take care of themselves. It would be a good beginning if traffic rules and regulations were standardized.

"Motor cars will continue to remove distance as a barrier to business development. Business will start a movement away from congestion. Land is one of the most plentiful things this country possesses. All out-of-doors is at the disposal of business. The motor car is liberating business from huddled centers.

"Great developments of the Zeppelin may be looked for. Airships of the future will utilize all the flying methods which are now used separately. Crossing the Atlantic by air way will become an ordinary occurrence. In this connection it will be well to watch the development of the helicopter.

"Farming will be done by people living in towns. Motor cars have made this possible.

"Petty wars will cease in Europe Motor cars will neutralize boundary lines. People will mix together and learn that the man across the river or over the mountain is not necessarily an enemy"

#### Along the Party Line

Got Rocks Dept.: The sparkle set added four new names to its list at Christmas time: CLAUDETTE HEATH, Accounting, is looking forward to being Mrs. Ray Cupitt. Ray's a local boy. RUTH ANN SOLLIDAY, Accounting, will trade in the Solliday for Fretz, but didn't say when. His first name's Bill and he hails from Phoenixville. GINNY BEYER, MCD Sales Secretary, and Harry Hertrich will be mailing out engraved stationery one of these days. Harry's from Ambler. CAROL TRAUB, Benjamin Foster Division, has impressive proof of a proposal from Jim Corrado.

Visitors from Abroad: CLAUDE HESS, Technical Director, CFPI (Compagnie Francaise de Produits Industriels), Asnieres, Seine, France returned to Ambler for a three-week visit last month. A few years ago, Claude spent a year with us as a trainee. CHRISTIAN BIGNER, A. B. Bigner & Co., Lidingo, Sweden joined the apron-and-rubber-glove brigade for a three-month training stint in the Pilot Plant beginning January 19. FRANK SCIORELLI, Luigi Sciorelli, Turin, Italy is also on a three-month training program Frank started on February 1.

Continued on Page 16

# Free Enterprise } Means to You

We have all heard about free enterprise. What does it mean to you? Let's break down the phrase.

"Free" means not subject to some particular authority or obligation.
"Enterprise" means an undertaking, especially one which involves activity,

courage, energy, or the like; an important or daring project; a venture. Together they mean that you are free to compete with the other fellow as an equal.

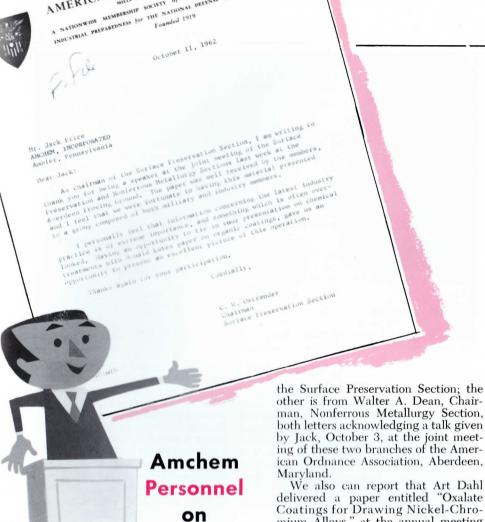
It means that your ability and individual initiative are the only limits to the height of your success.

It means that the rewards of your hard work and thrift belong to you. It means that your welfare depends primarily upon your own ability, indus-

try and thrift—your enterprise.

In short, "free enterprise" means that we always recognized the fact that this nation's growth rests primarily on the foundation of individual freedom.

The American Citizen (Newspaper)



There are always requests for Amchem personnel to address various meetings, associations, groups, etc. on subjects pertinent to the functions of our products. This is pretty fair acknowledgement that a man from Amchem is an authority on the topic about which he speaks and that our chemicals, both for metalworking and agriculture, are accepted as the standard in their respective fields. To lend a bit of credence to these statements we reproduce one of two letters to Jack Price, Assistant Sales Manager MCD, from officers of the American Ordnance Association. The letter which we reproduce is from C.W. Ostrander, Chairman of

the Surface Preservation Section; the other is from Walter A. Dean, Chairman, Nonferrous Metallurgy Section, both letters acknowledging a talk given by Jack, October 3, at the joint meeting of these two branches of the American Ordnance Association, Aberdeen,

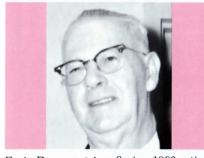
delivered a paper entitled "Oxalate Coatings for Drawing Nickel-Chromium Alloys," at the annual meeting of the Wire Association, Baltimore, Md., October 23, and that Harlo Beals addressed a meeting of the American Electroplaters Society, Hamilton, Ont. branch on "General Practices of Metal Pre-Paint Preparation.

#### George Gardner to Give Paper at NACE

George Gardner, MCD Research Chemist, has again been invited to present a paper at the Annual Conference of the National Association of Corrosion Engineers. This year's meeting will be held at the new Americana Hotel, New York City, March 11 through 15. George's paper, entitled "The Relation Between Inhibitor Concentration and Inhibition in Solutions of Acid Corrodents," will be read at the Corrosion Inhibition Symposium.

### THE AMCHEM NEWS

#### Retires!



Ernie Davenport is a Spring 1963 retiree who looks on the future with a smile of expectancy. Ernie has over 30 years combined Amchem-Neilson service to his credit. He was Sales Manager of Metalworking Chemicals for Canadian District.

#### Herbert R. Amey

The death of Amchem retiree Herb Amey on February 1 came as a surprise to all his former ACP associates. Herb died at Montgomery Hospital, Norristown after having suffered a heart attack earlier at his home in Ambler. He had been a loval and dependable member of the Maintenance staff from March 1931 until his retirement in April 1955. He was always a welcome guest at the retirees' table at the annual Christmas party and when we saw Herb at the last party we felt he'd attend many more.

Funeral services were held at Mt. Pleasant Baptist Church, Ambler, February 5, followed by burial in Whitemarsh Memorial

To his widow and the other members of Mr. Amey's family we extend our sincere sympathy.

We quote a letter from Mrs. Amey to Plant Manager Graham Smith acknowledging the interest shown by the Company on behalf of Herb.

Feb. 19, 1963

Dear Mr. Smith

I received the insurance check which Amchem carried on Herb.

Again I want to thank Amchem for all the wonderful things it has done for Herb and me.

Herb was a good man and has made it possible for me to continue to live in the home that both of us loved so dearly.

He shall be greatly missed by all for he was always so cheerful and spoke to everyone

Thank you again.

Sincerely, Elsie Amey

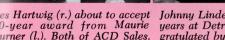
114 Race St. Ambler, Penna.

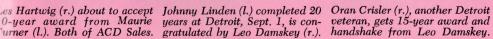


Service Pictures too Late for Last Issue

Rostra







#### Continued from page 3

- Rotovate, plow or otherwise work up the soil as deeply as possible. Make a soil test.
- 2. Remove any large stones, pieces of wood or any other debris.
- 3. Rake level and mix in lime and complete fertilizer, depending on the results of a soil test.
- 4. Rake smooth; level grade away from the house.
- 5. Spread seed. The cost of seed and the time required to spread it is a very small percentage of the total time and money you must spend. Therefore, buy high quality permanent "all-perennial" grass seed. Look for the analysis every package of seed is required by law to carry. Mixtures with a proportion of annual grasses or bentgrass may look nice for the first few months, but will disappoint you in a season or two. Spread seed in a criss-cross pattern to avoid skips.
- 6. Spread additional fertilizer as required, rake the area again and roll with a *light* roller. There is no need for a heavy roller on most soils in Southeastern Pennsylvania.
- 7. Mulch. This is optional but safer. You generally cannot depend on your wife (or husband) to keep the seedlings moist continuously until they are established. Two or three bales of straw per 1000 square feet are suggested.
- 8. Mow the first time when grass is three inches high. Set the mower at a two inch height so that you do not cut off more than the top inch. Make sure the mower is very sharp for these first few cuttings. A reel mower is better than a rotary mower at this time.
- If you used a mulch, you can either remove most of it before mowing, or leave it on the grass to add a little organic matter to the soil.

#### **II Upgrading Poor Lawns**

By a poor lawn, we mean a lawn that has less than 40 to 50 percent permanent grasses. The following suggestions will improve most lawns and may—if followed through—correct the cause of the poor lawn.

#### A. Early March

1. Have a soil test made.

Add lime (ground agricultural limestone) if the soil test shows lime is needed.

#### B. Late March

- 1. Kill broadleaf weeds (dandelion, plantain, etc.) with WEEDONE® LAWN WEED KILLER, spray or granular. Instructions on label will tell quantity required.
- 2. Crabgrass control should be delayed until late spring or summer when WEEDONE® CRABGRASS

KILLER (Calar) is used. You will have to reseed a poor lawn, so you should not use an early spring treatment of a pre-emergence crabgrass killer.

#### C. Early to Mid-April

- Reseed, two or three weeks after you treated the area for broadleaf weeds.
- 2. Work up the bare areas to a depth of 4 to 6 inches.
- 3. If there are any low spots, add top soil until they are level.
- 4. Then follow the same steps as for seeding new lawns.
- D. Before reseeding and then after the first mowing, apply 10 pounds per 1000 sq. ft. of an organic fertilizer.

#### E. Mowing

- 1. Before reseeding, set the mower close (½ to ¾" cut) to remove excess grass and weeds. Keep the mower at this height of cut until new grass is up.
- 2. Then raise the mower to 1½" and keep it there the rest of the season.
- 3. Clippings may be left on the lawn after new grass seedings have been cut twice.

#### III Improving and Maintaining Good Lawns

Good lawns contain 50 percent or more of permanent turf grasses. These lawns can be brought into shape without reseeding.

- A. Have a soil test made and add lime if required.
- B. Control weeds in March or early April.
- Use WEEDONE® LAWN WEED KILLER to knockout broadleaf weeds present.
- 2. Use AMCHEM® CRABGRASS KILLER—Pre-emergence to prevent a new infestation of crabgrass during the period when you are building up the lawn.

#### C. Apply fertilizer in March

Good lawns in our area are fertilized at least twice a year. A complete fertilizer (10 lb. per 1000 sq. ft.) plus an organic fertilizer (20 lb. per 1000 sq. ft.) are used in September, and an organic fertilizer used in March.

#### IV Special Lawns— Zoysia and Bermuda Grass

- A. Weed control If you clean up weeds during the first two years while these grasses are getting established you will have hardly any weed problem thereafter.
- Control broadleaf weeds in late March using WEEDONE® LAWN WEED KILLER. Do not use this product at the time Bermuda or Zoysia are greening up in the spring.

- 2. Control crabgrass and other annual grasses with post-emergence applications of WEEDONE® CRABGRASS KILLER (Calar) when needed. Bermuda and Zoysia tolerate high rates of this chemical safely.
- B. Fertilizer Since Bermuda and Zoysia are summer growing grasses, it makes sense to fertilize them during their period of most active growth.
- 1. In May apply 10 pounds of a complete fertilizer per 1000 sq. ft.
- 2. In June, July and again in August apply 10 lbs. per 1000 sq. ft. of sulfate of ammonia.

#### **Merion Bluegrass**

Without question, Merion bluegrass is the most nearly perfect grass for suburban Philadelphia lawns. However, to take advantage of its aggressive growth and resistance to common turf diseases, you must fertilize adequately. Improperly managed Merion bluegrass can look worse than common grasses.

#### A. Seeding

- 1. A new seeding of Merion alone (3 lb. per 1000 sq. ft.) takes a little longer to establish than other grasses, but is best in the long run.
- 2. A new seeding of Merion bluegrass/Kentucky bluegrass mixture (2 + 1 lb. per 1000 sq. ft.) will provide a quicker cover and with proper fertilization, will soon shift to almost solid Merion.
- 3. Over-seeding Merion (1 lb. per 1000 sq. ft.) into established lawns will improve most lawns and eventually convert them to mainly Merion bluegrass. Overseed each fall and spring and use the Merion fertilizer program.

#### B. Fertilizer

- 1. Fall (September)
- Use 15 pounds of complete fertilizer plus 25 pounds of natural organic fertilizer per 1000 square feet.
- 2. Spring (April)
  Use 10 pounds of comple
- Use 10 pounds of complete plus 15 pounds of natural organic per 1000 square feet.
- 3. Summer (June)
  - Use 15 pounds of natural organic per 1000 square feet.

Fertilizing at all three dates applies the minimum of six pounds of nitrogen per 1000 square feet per year and will maintain the dense stand, good color and vigorous growth you want from a quality turf.

Note: Employees at Ambler who wish to order any of the Amchem weedkillers mentioned in this garden-care article should contact George Sawyer. Call 215 (housephone). These weedkillers are sold at special prices to employees on a cash-and-carry basis.

#### THE AMCHEM NEWS



The ZUBILLAGA, DUFAU and MASSIP families, refugees from the Castro regime, were given a sample of American hospitality when a member of the New Britain Junior Chamber of Commerce acting as Santa distributed gifts from this organization to the three families, December 20, at the Zubillaga home in North Wales, Pa. The fathers of the Zubillaga and Dufau children were featured in a story—The Two Miguels—in the October issue of the NEWS. Both men are employees of Amchem's International Division. In picture (rear row l. to r.): Mrs. Martha Zubillaga, wife of Miguel Zubillaga, Mrs. Theresa Pena, mother of Mrs. Zubillaga, Mrs. Celia Dufau, wife of Miguel Dufau, their daughter Maggie. (Front row l. to r.): Alfred Massip; Miguel Zubillaga and Martha Zubillaga, children of Mr. and Mrs. Zubillaga; Gloria Marie Dufau, daughter of Mr. and Mrs. Dufau. Affair was arranged by Bill Snyder, a member of the New Britain JC's who is a territorial manager in Amchem's International Division and a co-worker of the two Miguels.

#### Double 4-H Honors to Pat Delp

Pat Delp, Walt MacLaughlin's little bighelper in Credit, won top honors in the Tri-County 4-H Round-Up, at Hatfield, Pa., last November 24, for her pen of lambs. Pat's three Cheviots were adjudged grand champions in a showing of 20 pens from Bucks, Montgomery and Lehigh counties. This was the second year in a row that Pat's entry took first prize.

For five months prior to the show, Pat arose at five every morning and made sure her future champions were fortified with their victuals and were kept as free of vermin and as meticulously groomed as the pampered poodles of a Hollywood actress.

#### Additional Award to Pat

On December 27, at the Montgomery County Agricultural Extension Office in Norristown, Pa., Pat was presented with the Citizenship Award, a citation given by the Senior Extension Club of Montgomery County, for having written the best essay on her 4-H Club activities. Pat's essay covered her experiences during her nine-year membership in the 4-H.

Pat, who lives in nearby Broad Axe, graduated from Plymouth-Whitemarsh High School in 1961 and has been working in Amchem's Credit Department since her graduation.



#### Bobbi Long, Int. Div. Is Accomplished Actress

When Bobbi Long, International Division secretary, pulls the last letter out of her Remington at the close of a working day, she's just about to embark on another pursuit—acting. And from what we've heard she does a pretty good job on the boards.

A recent appearance was as Ermengarde, one of the three marriageable young ladies in *The Matchmaker*, Thornton Wilder's Pulitzer prize winning comedy of the gaslight era, presented by THE MASQUE, the performing group of LaSalle College's drama department, last December 9 through 16, at the LaSalle College Theatre, Philadelphia.

THE MASQUE operates in a manner somewhat similar to Summer theaters: Importing one or two "name" performers from the professional stage for the principal roles.

In the case of The Matchmaker, it was guest stars Frances Sternhagen from Broadway (Great Day in the Morning, The Skin of Our Teeth, et al.), and Mary Iane Milli who has appeared on tour with The Boy Friend, Oedipus Rex, and Twelfth Night, among other productions. Mrs. Milli also has several off-Broadway appearances to her credit. All this is by way of saying that Amchem's Bobbi Long is travelling in pretty fast companytheatrically—where a sub-par performance on her part, when stacked up against the work of the stage professionals, would stand out like an infielder's error in the World Series.

We should mention that LaSalle College, being an all-male school, has to recruit female talent from the outside for its productions.

Bobbi, who lives at 610 Argyle Ave., Ambler, with her mother and two sisters, has been active in theatricals since her high school days at Mercy Academy, Gwynedd Valley, from which she graduated in 1961. Last month she again performed with THE MASQUE group in Arthur Miller's dramatic opus, *Death of a Salesman*.

#### **Introducing New Members** of the Amchem Stork Club

ANTHONY VINCENT DELLA DONNA ... November 4, 1962 The Proud Amchem Parent: Anthony F. Della Donna (Shipping) LORIANN PULLI

... January 11, 1963
The Proud Amchem Parent: Francis J. Pulli (Shipping)

JANE MARGARET RODZEWICH ... November 12, 1962 The Proud Amchem Parent: Ed Rodzewich (MCD Laboratory)

MEIR GIRARD SEGAL

.. November 29, 1962 The Proud Amchem Parent: Hirsh Segal (MCD Research)

NANCY JANE SMALL

The Proud Amchem Parent: Don Small (ACD Lab)

DAVID SCOTT SMITH

... October 8, 1962 The Proud Amchem Parent: A. P. Smith (MCD Sales)

#### Welcome to Our New Employees

NAME

JAMES AMBROSIA BETTY BUTLER KENNETH H. BURDGE DR. ANSON COOKE MARTHA DAVIS MARIAN EELSING VINCENT G. GALLUCH JAMES F. HENNESSEY THOMAS HOPKINS MYRON C. JOHNSON LELAND KOBUSSEN HERBERT F. KORSCHEWITZ MADELINE E. MAINES JOAN MARIOTZ FRANK MARKLEY RICHARD W. MITCHELL SHIRLEY RUTH MAYNARD CATHERINE McCHESNEY JAMES E. NAUMANN ORBY E. ROACH, Jr. **ROBERT E. SAYLOR** MATTHEW SIENKO PAUL V. TOMLINSON LLOYD WEISS

HOME TOWN Ambler, Pa. Fremont, Calif. Wathena, Kansas West Chester, Pa. Ambler, Pa. Fremont, Calif. Detroit, Mich. Kirkwood, Mo. Warminster, Pa. Mooresville, Ind. St. Joseph, Mich. Cleveland, Ohio Ambler, Pa. Ambler, Pa. Ambler, Pa. Rexdale, Ont. Detroit, Mich. Ambler, Pa. Milwaukee, Wis. St. Joseph, Mo. Detroit, Mich. Conshohocken, Pa. Ambler, Pa. Dublin, Pa.

ASSIGNED TO MCD Production Office, Niles Production, St. Joseph Biological Research Packaging Office, Niles
MCD Lab, Detroit
MCD Sales Pilot Plant MCD Sales ACD Sales MCD Sales Accounting Accounting MCD Production MCD Sales Office, Detroit Packaging MCD Sales Production, St. Joseph MCD Sales Receiving Quality Control ACD Production

#### Along the Party Line

Continued from page 12

Adieus with Regrets: FRAN SIMILA, Secretary to Joe Torchiana, and LYDIA GAL-VIN off to join the diaper-changing club which is having a spring membership

drive. (See showers.)
BETSY (REINHART) YOUNG, December 28, to become a secretary in the Ag. Dept. of the University of Maryland. Primary motive: to be near husband Brian

stationed at Fort Meade, Md.

DR. ED WHEELER and lab mate JIM
KNIGHT, MCD off to engage in other forms of Research.

Wedding Belles: MARIE LIBERTO, ACD Sales, and David Costanza were Ambler's happiest and handsomest couple on Feb. 23 as they solemnized their merger at St. Joseph's, Ambler. A reception was held at Casa Conti, Glenside.

Heirs to Illness: Those of us at Ambler who personally know BLANCHE VAN BUREN, Detroit Office Manager, were sorry to learn of her illness. We wish her a speedy recovery. Ray Neilson and Leo Damskey have been faithfully keeping us informed of Blanche's progress.

FRAN ORCUTT, Jack Price's secretary, the North American Secretary of the secretary of the

has resumed her customary chores after her hospitalization last month.

After seeing DICK CARSON, Research farm, at the Plant Christmas Party we can report he's looking like his old self after an operation in '62. Dick was out at the time of our annual Weed Control Field Day and we overlooked including his name in connection with the affair.

Our apologies to KAY GRAMM, International Division, for not mentioning her trip to the operating room in our Oc-

MAX ZEBICH's desk chair was vacant for a spell while Max was hospitalized for surgery. By press time we hope to see him back and swiveling.

Showers: Accounting threw its facilities open from 12 to 1 on Jan. 10 to LYDIA GALVIN's co-workers who presented her with a nurseryful of baby things. Lydia

Another baby shower for FRAN SIMILA, Jan. 22, organized by and given in the home of MARY LOU D'APUZZO.

Fran also left on Jan. 25.
DOT DILAURO, ACD Sales, an experienced hand at hosting, had a group at her home for a wedding shower for bride-to-be (at that time) MARIE LIBERTO, Jan. 29.

The Winnah! GEORGE ANTONACIO (Shipping), and the missus won an all-paid weekend in New York plus \$50 in spending money at the St. Anthony's Christmas party in December. Included were tickets for the musical "Stop the World I Want to Get Off," a visit to a night club plus sight-seeing.

Outside Pursuits: As president of the Dolphin Swim Club, an organization of Abington Township parents that sponsors Abington Township parents that sponsors a complete swim program for boys and girls of the township, JIM THIRSK, MCD Lab Chemist, sets a rigid example for other members. Jim not only coaches and manages the "Cadet" (beginners) group, but he also devotes one night a week to the instruction of handicapped children. under Red Cross auspices. GEORGE SCHNEIDER, ACD Development, also contributes his time to the same worthy cause.

#### Fore! 1963 Golf Season

Keep your eye on the various bulletin boards for information on the 1963 Season's play. League Season opens April 29. Qualification trials will be held on Good Friday, April 12. Contact Captain Merv Hubbard or Co-captain Frank Piacitelli for details.

#### Condolences •

Ray Neilson reports the death of two Detroit employees: Paul Wendt, sales representative, and Kerwin Meyer, Plant staff. Paul died on January 2 from complications resulting from a heart attack suffered before Christmas. He represented Amchem's Neilson Division, which he joined in 1947, and worked out of Dallas, Texas.

Kerwin passed away January 18, at the age of 42, from multiple sclerosis from which he had been suffering for the past 18 months. He started with Neilson in 1946. He was the third generation to work for Neilson, his father having been employed from 1934 until his retirement in August 1962, and his grandfather during the 1930's.

To the families of both Mr. Wendt and Mr. Meyer we offer our sincere sympathy.