

# Upjohn **NEWS**

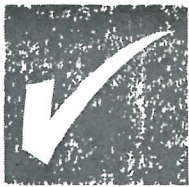
JANUARY 1954

*New  
Year  
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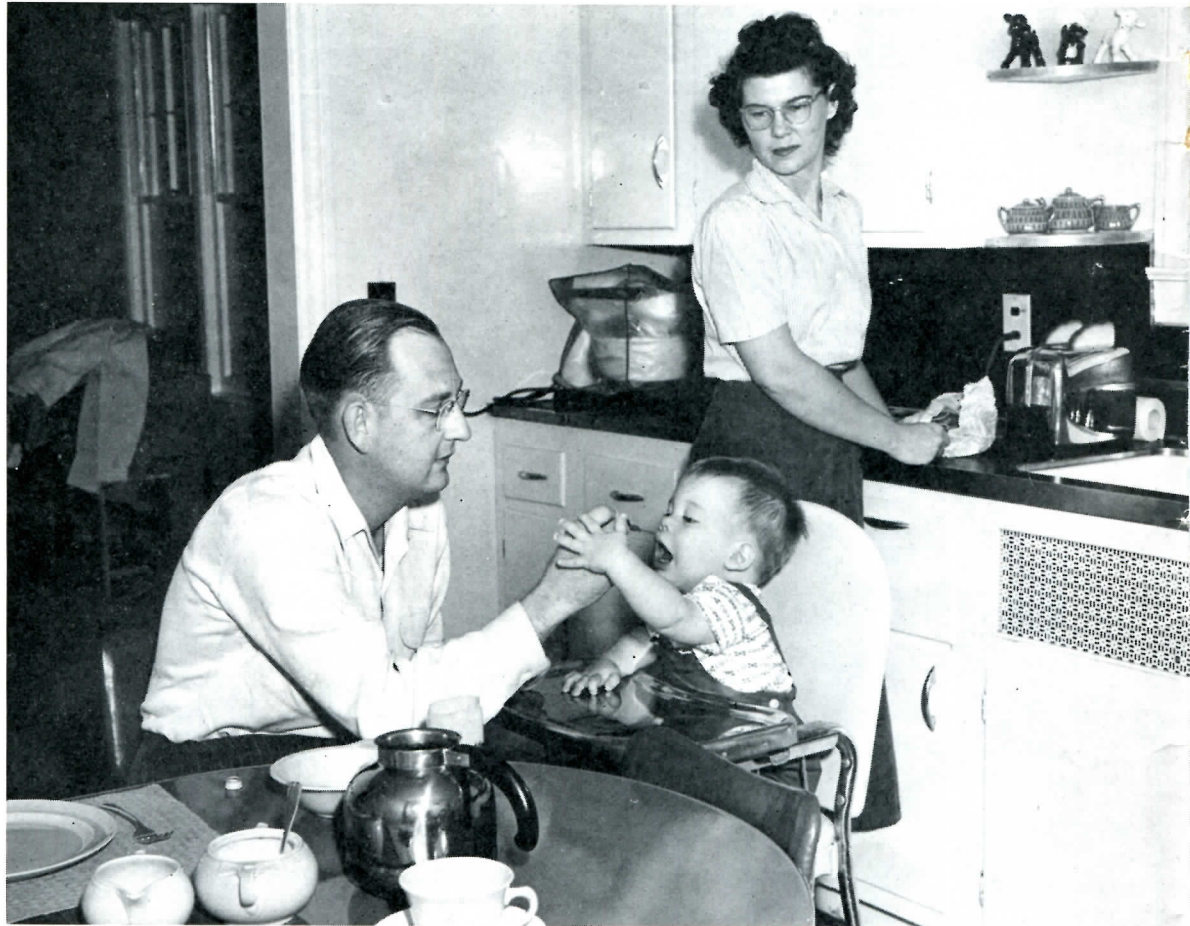


## *Featuring*

A Check Point—Chemical Control  
In Touch With Tomorrow  
Office and Finance Organization  
Fish Fanciers  
Our Products Pen-G-Cap and Readicillin



# “A Check POINT”



“Open wide!” Eleven-month-old John Pugh takes daily dose of Zymadrops, one of several products assayed by his dad, Art, in Chemical Control Laboratory. Art’s wife, Margaret, formerly worked in Chemical Control Department.

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Front Cover: NEW YEAR, NEW COUNTRY is the story for Ben Apotheker’s brother and family, more complete details of which are on page 131.

### EDITORIAL STAFF

Mary Eleanor Stoddard, Editor • Barbara Schreiber • Barbara Hearst • Alice Scharff

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For many years signs reading "Keep the Quality Up" were posted in conspicuous places about the Company. Although they have since disappeared, the ideal has not. One of the groups whose sole purpose is keeping the quality up, is the Control Division, directed by J. B. Fullerton.

It is a well-known fact that to insure product integrity a series of check points must be established. Control people maintain four of these points—Finished Goods Inspection, Reclamation, Chemical Control, and Biological Control. Youngest of these Departments is the Chemical Control Laboratory which had a third birthday anniversary January 1. Prior to 1950, this work was carried on as a part of Control—General.

As compared to Bio Control (featured in the November 1952 UPJOHN NEWS), where products are tested with micro-organisms or laboratory animals, Chemical Control people assay products by chemical and physical methods. Headed by C. Leroy Graham, the Department is powered by twenty Control chemists, three of whom spend full time on the analysis of the Portage Plant's waste water.

### **From start to finish**

Chemical Control is a service organization for nearly every department in the Company's Research and Production Divisions. They serve as check point for products from start to finish. In addition to assaying Research embryo products, Control people work closely with Pharmaceutical Development to develop new methods of assay and improve old ones.

Even before raw materials are transferred from warehouse to Production, their identity, purity, and potency are checked by our Control chemists. During various stages of the mixing and filling processes, preparations are also checked again. Release of goods to Central Stock Control awaits the word of Chemical and Bio Control people.

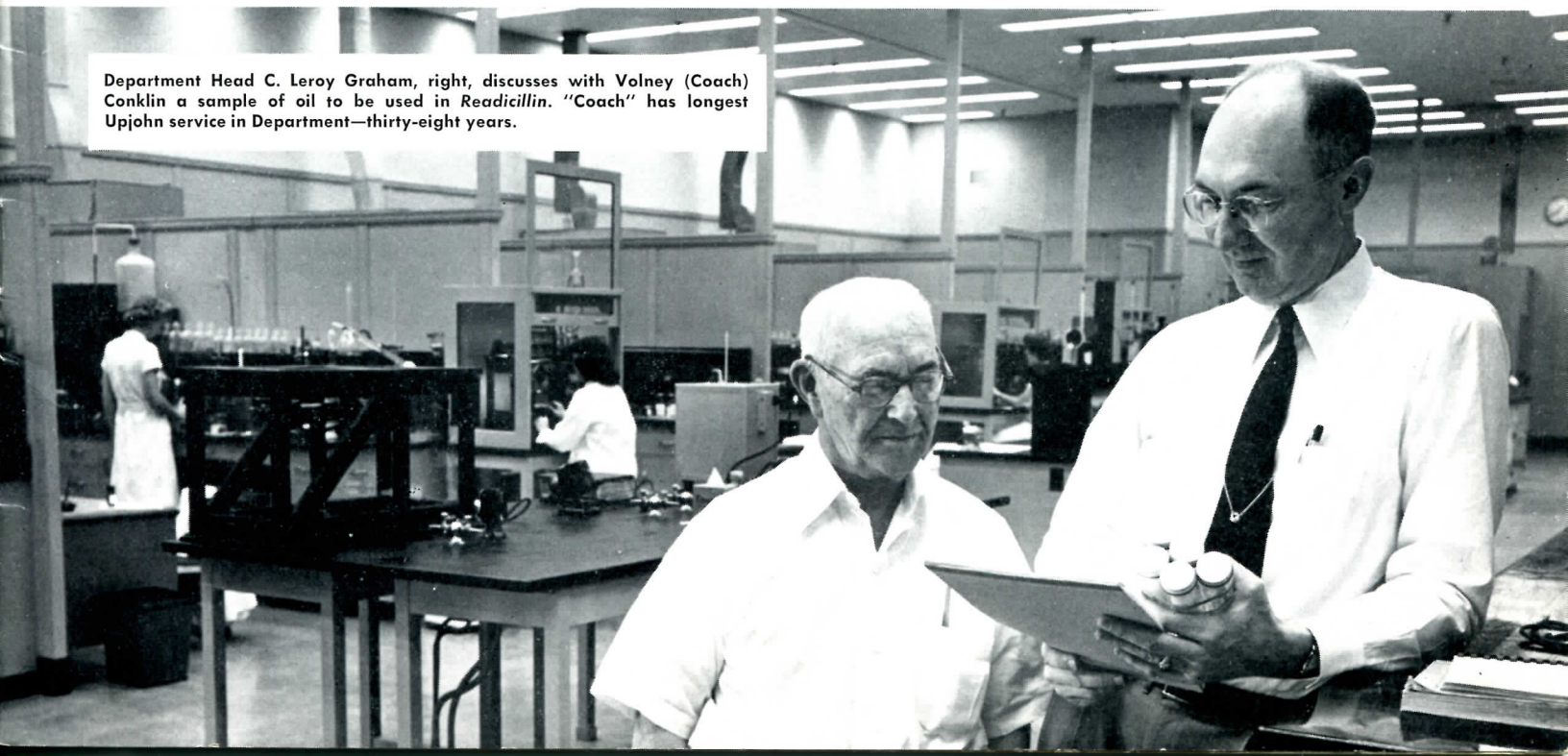
### **An additional insurance policy**

Further effort to protect and maintain Upjohn's fine record of reliable pharmaceuticals is put forth via continuing stability studies. Periodic checks are made to determine the condition of products after they have been stored at the Home Office or shipped to the Branches. Once each month the Branches receive a list of samples which are to be returned to the Control Office. Control is interested to know what changes, if any, have occurred in the drugs. It is important that products retain their strength, and that their color, appearance, and consistency do not alter radically. This study is particularly important concerning products which have expiration dates. A product which is less potent than the label indicates could be just as harmful as one which is more potent.

Druggists, doctors, and Upjohn salesmen are encouraged to forward to the Home Office suggestions or complaints regarding our products. Control assumes responsibility for following up these reports, many of which prove to be valuable tips.

We have a fine record for product reliability and Control is one of the requisites of that reliability. Aided by the know-how, personal integrity, and good judgment of the people in the Chemical Control Laboratory, Upjohn "keeps the quality up."

Department Head C. Leroy Graham, right, discusses with Volney (Coach) Conklin a sample of oil to be used in Readicillin. "Coach" has longest Upjohn service in Department—thirty-eight years.

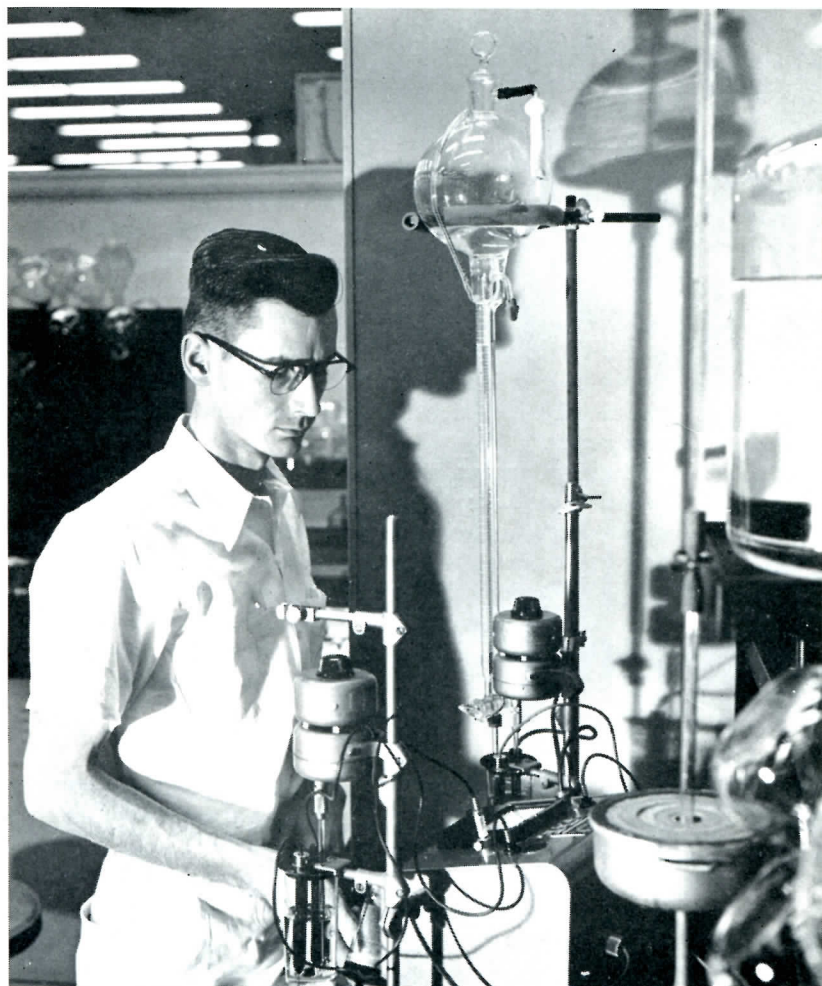


**They assay . . .**

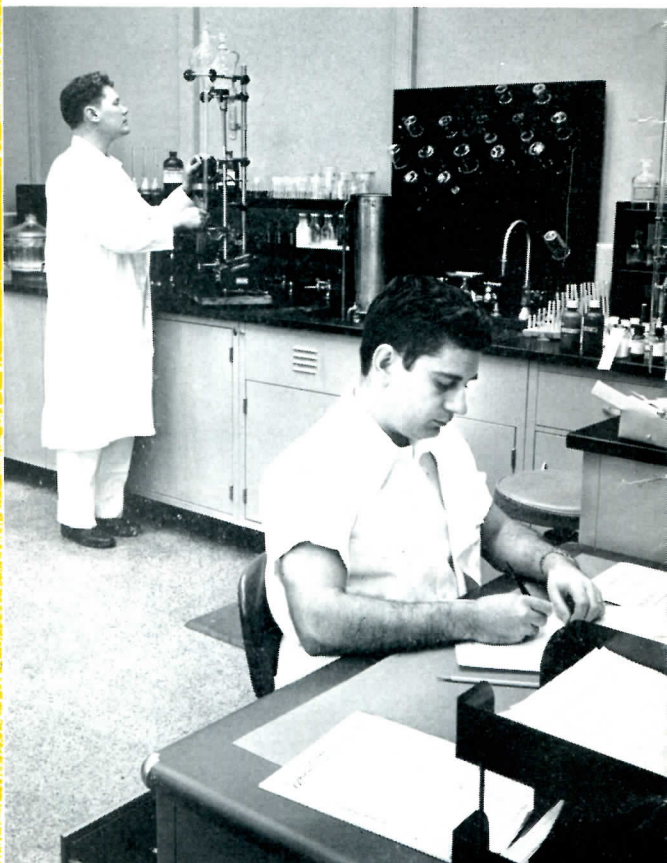
**Research Embryo Products**



Potency and stability checks of cortisone and hydrocortisone constitute the majority of Bill West's Control work. Here Bill prepares to test a Research formula containing hydrocortisone.

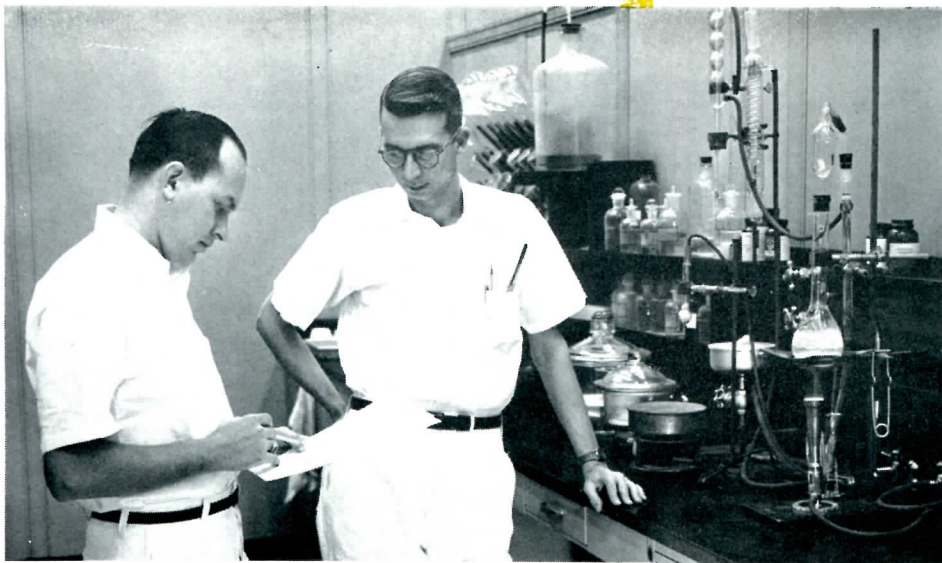


Gene (Sam) Hamlow uses the titrimeter to measure potency of Thiamine Hydrochloride (Vitamin B<sub>1</sub>) prior to its use in new nutritional supplements.

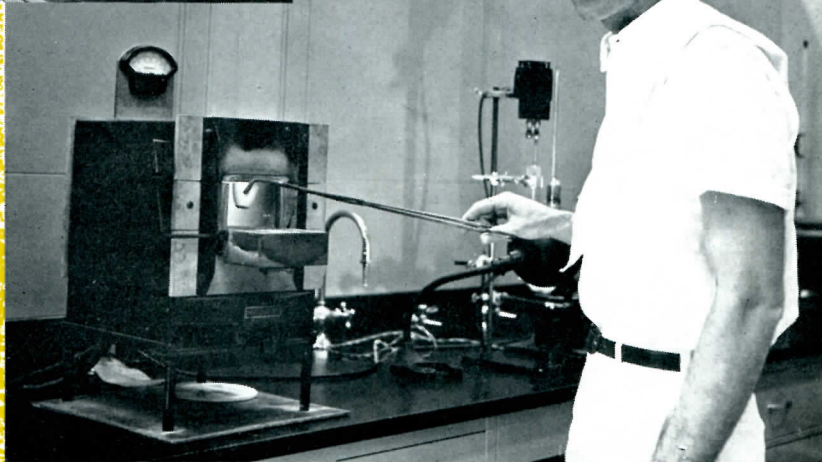


Andy Downing, left, uses the Aquatrator to determine the moisture content of penicillin. At right, George Ryan records results of a completed penicillin assay. Like all other antibiotics, each lot must meet strict requirements of Food and Drug Administration before it can be used.

## Raw Materials



Although most of the Control staff work alone, there are times when two heads are better than one. Bob McCowen, left, and Paul Allen discuss the results of a thrombin assay. Kjeldahl apparatus is used by Paul to run nitrogen determinations on Somagen.



The muffle furnace—with temperatures as high as 1700° F.—is used to reduce to ash raw materials like cortisone and phenobarbital in order to determine their purity. Don Davis assays products containing these two drugs.



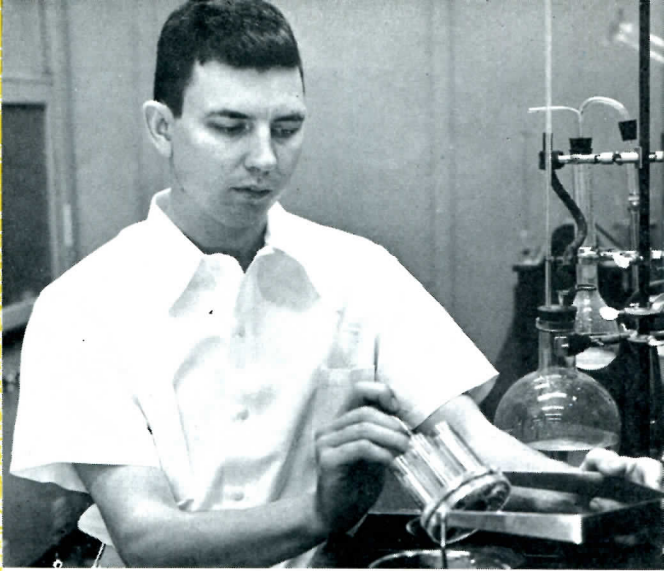
Checking the purity, as well as identity, of methylcellulose, Ken Cline watches carbon dioxide bubble through special apparatus. Methylcellulose is one of raw materials used in manufacture of Hydrolose syrup.



"The acid test." At the titration table Pat Clark, left, and Joann Downing measure strength of citric acid and sodium bicarbonate. Both are raw materials used in manufacture of such products as Citrocarbonate.



# Finished Goods



Using materials such as artificial gastric juices and intestinal fluid, Ernie Kubiak determines length of time needed for tablets to disintegrate. The water bath in which tablets are placed maintains the necessary constant temperature.



Art Pugh reads the specific gravity of a *Lipomul-Oral* sample to make certain it meets Upjohn standards.



Though the equipment is different than that used by Don Davis, the ash determination test Pauline Wherly runs on zinc oxide ointment is the same.



A fifteen-foot ladder is needed by Neil Stuit to reach the top of the immense sample file which belongs to Chemical Control. Neil's file contains between 75,000 and 80,000 samples, some of which date back to 1946. This collection provides "documentary evidence" should any questions arise after samples have been OK'd by Control.



One of three labs adjacent to the Tablet Department and part of Chemical Control expansion, is used for waste water analysis. Bob Elgersma, Ken Youngs, and Ward Holz assay materials taken from the Pilot Waste Treatment Plant in an effort to determine both present and future sewage disposal needs.

## My, how you've grown!



### Chem Control has three new labs

In order to accommodate an additional project and two valuable methods of analysis, Chemical Control working space grew by three labs early in September. One of the labs houses the Department's new Infra-red Spectrophotometer, which is being operated by Marv Grostic. A second lab, with adjoining dark room, is used by Bill Bartelt for paper chromatography assays. Although this method of analysis is not new to the Department, the additional working area allows use of chromatography on a larger scale.

Newly acquired responsibility of Control is the analysis of waste water samples from the Pilot Waste Treatment Plant. The establishment of this simulated disposal plant and "research" laboratory will enable them to determine both present and future needs for disposal of waste. Ward Holz, Bob Elgersma, and Ken Youngs analyze about fourteen water samples taken from the Pilot Plant each day.



The Infra-red Spectrophotometer, which Marv Grostic and Bill Bartelt unpack, is an important addition to the list of Control Lab instruments. Marv spent three months in the Department of Physics learning to operate this highly specialized instrument. Bill is usually in lab across corridor from this one where he does analysis via paper chromatography.