

## Immediate Profits and Ultimate Values

BOTH are increased when farm production is brought to the maximum point. Therefore when the farmer is able to profit most, he benefits the community greatest.

The U. S. National Bank is constantly on the alert to help local farmers better their crops and livestock and make necessary improvements in methods.



S. L. PARRETT, President  
**UNITED STATES NATIONAL BANK**  
OF NEWBERG, OREGON

We Make a Specialty of Quality and Service at

## VINCENT'S GROCERY

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FANCY GROCERIES

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## Just Where and How Is the Money to be Spent?



A businesslike Answer to a businesslike Question

THIRTY denominations cooperating in the Interchurch World Movement have budgeted their needs. No business could have done it more scientifically.

They have united to prevent the possibility of duplication or waste. At least a million dollars will be saved by the fact that thirty individual campaigns are joined in one united effort.

Each denomination has arranged its budget under six main heads:

1. FOR THE CHURCH'S WORK AT HOME. A score of times come under this head. Consider only one. Five and a half million people in the United States cannot even read and write the English language. Who is to carry forward this vast work of Americanization if the church does not?
2. FOR HOSPITALS AND HOMES. Every year thousands of men and women seriously ill are turned away from Church hospitals because of lack of room. The children's homes are compelled to turn away more children than they can receive.
3. FOR HIGHER EDUCATION. Of the 450,000 American students in institutions of higher grade, one-half are in institutions founded and supported by the Churches. Many of these institutions have had no great endowment campaigns, but their needs are just as pressing as the needs of larger schools, and you have only to read their list of alumni to see the value of their contribution to America.
4. FOR RELIGIOUS TRAINING. At least 12,000,000 children and young people under 25 years of age are entering American life without any religious training at all. Remembering the faith of Washington and Lincoln, do you think that America will continue to produce Washingtons and Lincolns if faith dies out of the hearts of its youth?
5. FOR THE CHURCH'S WORK ABROAD. Influence came first from the Orient thirty years ago; nearly all plagues are Oriental plagues. So long as China has only one physician to every 400,000 people the Orient will continue to be a menace. So long as one-third of the babies of India die before their second year our own babies are not safe. A Christian doctor or teacher sent abroad is working for America as truly as though he worked at home.
6. PREACHERS' SALARIES. The preacher is called the "forgotten man," and well he may be. Right out of two preachers are paid less than \$20 a week!

Each denomination has its own detailed budget, and will administer its own funds. Your pastor has copies of the budget; examine them for yourself. In the week of April 25th-May 2nd you will be given your opportunity to help. You can do it with the full satisfaction of knowing that every dollar of your gift has its post assigned to it in advance.

Every dollar for better America and a better world. When your church calls on you give—and give with your heart as well as your pocket-book.

United Financial Campaign



April 25th to May 2nd

**The INTERCHURCH World Movement of North America**

The publication of this advertisement is made possible through the cooperation of thirty denominations.

## THE HIGH SCHOOL AGRICULTURE NOTES

1. "Chemical analyses of soils are valuable mainly to assist in conducting investigations of a scientific character. With the present methods they are of little use as a means of deciding what fertilizer should be applied. The farmer should experiment with different fertilizers, and not depend on a chemical examination of his soil, unless he has reason to think that he has a very special problem."

2. "A chemical analysis of a soil consists in finding the amounts of nitrogen, phosphoric acid, potash, lime, magnesia and humus that it contains. It may be carried further and the other constituents determined. These materials, except the humus and nitrogen, are extracted from the soil by strong acids. The action of these acids is many times stronger than is ever brought to bear on the soil in its normal condition in the field. It is therefore impossible to draw any certain conclusion from the results of such an analysis that are applicable to field conditions."

3. The "plot test" method of analysis is the one used by practical men. Actually growing a crop on a small piece (or plot) of ground typical of the field for which soil analysis is wanted. This is done for each field individually. Very often a strip about a rod or so wide is run across the field. Same may be fertilized, or may be fertilized systematically and conclusions may be deduced from the data collected.

4. To analyze the results of a "plot test" one must bear in mind that the three principal plant food elements effect plant growth in the following way:

(a) Nitrogen promotes vigorous top growth rather than floriferousness, or fruitfulness. Plenty of nitrogen will mean a deep green leaf color and luxurious growth. Too much will be retardation of fruiting, flowering and perhaps maturing, and will sometimes account for "winter killing." Lack of available nitrogen is shown by scanty and pale, perhaps yellowish foliage.

(b) Phosphoric acid helps in the assimilation of other food, induces and hastens flowering, fruiting and seed formation, quickens the maturing of the plant usually, and its presence in insufficient amount is shown by the failure of the plant or plants along these lines.

(c) Potash is necessary for the formation of starch in the leaves and to assist in the transference of starch to the fruiting and flowering parts. It is needed to make structure—the firm, fibrous or woody texture of the stems. It contributes to neutralization of acidity in fruits and is over half the ash left after burning. Lack of potash is therefore shown by extreme acidity perhaps for a particular variety of fruit for example, the tomato. Or more surely, the lack is shown by weak stems. Where much nitrogen is available as indicated by the rank growth, and a crop like oats, to illustrate, is apt to "lodge," a plot test will show lack of potash, which will mean lack of sufficient support the heavy growth and offset the excessive nitrogen stimulation, though considerable potash may really be present.

5. No one of the three essential elements can be considered alone. All three are interdependent upon one another. Conclusions drawn from data collected concerning one element, must be drawn with due regard to any and all conditions likely to be brought about by other fertilizer element application.

6. (a) Plow field before laying out plots (or plots.)

(b) Do not lay out plots on a field that has been manured (or fertilized) within one year. If you experimented last year, use different ground this year, unless carrying on a test covering a period of years to work out a "special crop" problem.

7. Please do remember that chemical analysis does not show whether the elements present are or are not available for the use of the plant.

Oliver F. Kilham,  
Director Agriculture Department,  
Newberg High School.

### Science and Soap Bubbles.

Sir James Dewar, the English professor of chemistry, who has made soap bubbles which he kept intact for more than a year, says that when a soap bubble becomes very old, say in three or four days, it offers the only possible example of the molecule visible to the naked eye. In the soap bubble ordinarily there are about 100 layers of molecules, but scientific treatment has produced black spots in which there is only a single layer, so thin that Sir James estimates that it would take one and one-third million like it superimposed to make an inch.



HITS THE SPOT  
**DON'T WASTE A GOOD THIRST ON A POOR DRINK BRING IT HERE**

A GOOD THIRST IS A THING TO BE TREASURED—IT IS ALWAYS WORTH A GOOD DRINK.

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to wait until you can reach our fountain YOU WILL NOT BE KEPT WAITING—Only two considerations are ahead of Promptness at our fountain—CLEANLINESS—QUALITY.

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The result is a temporary beautifying effect, without preserving the wood.

FULLER Paints and other products are of that quality which preserves and beautifies. Through their use, inside and out, years of life will be added to your home and it will be made more livable to yourself and family.

Seventy-one years of paint-making experience are back of every brushful of FULLER Products. Insist on FULLER'S and you'll be sure of results. And remember, there's a FULLER Product for every paintable surface—inside and out.

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