# Salem is the Market and Manufacturing Center of a Great Potato Industry Which Ought to Be Several Times as Large

### **AMILLION DOLLAR POTATO ARTICLE** FOR THE FARMERS OF THIS STATE

Yes; More Than a Million Dollar Article; It Would Be Worth Millions If All of Our Farmers Would Read It and Profit by the Advice Which It Contains-Five Rules That Are Essential for the Best Results

### Editor Statesman:

with the rest of the pieces. This un-Your request for the potato article split blossom end piece is the best came just as I was leaving the col- piece, and especial mention is made of this since nealy every one splits lege for an eastern Oregon trip. I it and damages it. am writing this from Pendleton and Some even cut off this end and

attach article, which I trust will discard it. The Oregon Experiment station at

reach you in time. Corvallis believe, as the result of ex-I am very grateful to you for this opportunity to make this wider pre- periments, that it is the highest sentation of this matter, and should yielding piece of the potato for seed you have other crop topics, such as purposes.

Diseased seed results in the early beans, sunflower silage, corn, grain death of many plants and even in grades and similar subjects, I shall be glad to render any assistance that a complete failure to sprout. This makes many a thin stand. I can. A cloddy, dry seed bed means

-Geo R. Hyslop, Prof. of Farm Cops. poor sprouting and a poor, uneven

(Following is the article of Prof. stand. Planting is responsible for many Hyslop-and the writer believes that if it could be placed in the hands poor stands.

Many growers get better stands of every Oregon farmer, and if every with the "two-man" or "pocket' Oregon farmer would follow its type of planter than they do with precepts to the letter, it would be the "one-man" or "picker" planters. worth MILLIONS OF DOLLARS to This is probably due to letting the this state:)

Why is the average yield of Orepoints get dull or short or clogged. and to uneven seed, but nevertheless con potatoes only a little ove 100 it results, in rather frequent poor hushels an acre? Why do so many people object to stands.

Some plants are cultivated out and the potatoes grown in the state? as a result of the above losses, as Why is it hard to get good seed

potatoes in many districts? well as gopher and other rodent These are live questions in Marion damage, many a field arrives at harcounty and in the Willamette valley, vest time with less than 70 per cent and there is a solution for them. of a stand and consequently a poor

The low yields are due to two yield. things: (1) poor stands; (2) low yields from the hill because of poor

Plant potatoes in rows 31/4 feet have sold away their market size apart and 114 feet apart in the row and it makes a stand of nearly 11,- into thinking that little potatoes of storage conditions. 000 plants an acre. On this basis sorted out of the good ones are seed. hills weighing the amounts given below will yield the return in the right hand column:

Weight of Hill. Yield an Acre keep them for foundation stock? On you life, we do not. 120 bu 10.9 oz 178 bu We keep the ones we want the 1 pound stock to be like. Therefore if we 534 bu 3 pound 890 bu want potatoes that are big enough 5 pound \*Remarks: Better than our 4-year to sell we will have to plant some of that kind after they are cut to the average, 1916-19. right size.

tion and so builds up disease-free stock, true to name. will gladly undertake to inspect from When this is done we will get 100 to 250 potato fields in Marion better stands and yields. county, and other counties, this People will like our potatoes betyear, even though the field may be

ter for table stock. only half an acre. This is in order We will be able to find food seed that there may be a start at least for Oregon growers., We will be able to sell genuine of good seed for another crap.

seem to be able to do so.

and disease free seed to Washington. Certified seed will increase our Idaho and California, AS NONE OF THEM IS PRODUCING ENOUGH | yields, and put our potators in the

FOR THEIR OWN NEEDS, and don't market at a premium. -Geo. R. Hyslop,

## **GOOD CARE IS THE PRICE** PAID FOR GOOD POTATOES

There Must Be Rotation, Seed Selection, Seed Disinfection, Spraying and Proper Storage Conditions, in Order to Insure the Best Results

M. B. McKay, assistant plant path-i years, the result has always been the that will hasten the growth of the ologist, is the outhor of Extension same; namely that the diease be-Bulletin 186 of the Oregon Agricul- came so severe that profitable yields could no longer be secured and large

tural college, on "Control of Potato Diseases in Oregon." This bulletin potato culture. As concrete examis too long to copy here; but the following are some of its high lights: "Potato growing is an important Greeley district of Colorado.

industry of Oregon and is generally a profitable one. "This comparatively rapid increase in the number of diseases affecting potatoes is due in part to the continuous culture of potatoes on the same

land for a period of several years. "It is fortunate that practically all the diseases attacking the potato can be successfully controlled by comparatively simple and inexpensive such land. It is therefore best that measures "It should be borne in mind that

control of these diseases depends entirely on pervention and on cure. time being planted to other crops not "There are five important factors affected by the potato parasites.

to be considered in the prevention and control of potato diseases; namely, rotation, seed selection, seed disposes: namely, increase in yield, stock and have fooled themselves infection, spraying, and improvement greater uniformity in size and shape

of tubers, and greater freedom form 'Rotation.-Inasmuch as a numdisease. When we want to develop a fine ber of the organisms which cause disease of the potato live for part fact that a number of skin diseases. breed of hogs, de we sort out all the of the time in the old tops and other runts and off-types and scrubs and

such as scab, Rhizoctonia or black refuse left in the soil after harvest. scurf., etc., are so often present on the practice of rotation is imperathe potatoes in this state, it is detive where these diseases are pressirable that all potatoes, whether ent and a disease-free product is they show evidences of diseases or desired. Not all fields grown con- not, be treated by a disinfecting sotinuously in potatoes for several lution before they are planted. years develop disease to a serious ex-"Spraying .- In order to control

tent, because the seed used may have certain of the leaf diseases such as

potatoes be not grown on the same

## The Oregon Agricultural college will gladly undertake to inspect from 100 to 250 potato fields in Marion **GROWING OF EARLY POTATOES**

Three Varieties Are Mentioned as Doing Well Here in the Willamette Valley-The Market Prefers the White Potato, However

#### (By Jesse Huber.)

Growing early potatoes is profitable. Special conditions of soil and management of the crop are necessary if the most satisfactory results are to be obtained in the vicinity of Salem

The first requirement in producing a crop of early potatoes is sandy oil with a southern exposure. Clay loam or soil having a northen slope will retard the early maturity of the crop. The temperature in western Oregon rules rather low during the months of spring. Every condition young potato plants should be met as

far as possible. The soil should have been thoroughly enriched at least one year in acreages had to be abandoned for advance by scattering ten or a dozen ples of this, we may mention the San loads of barnyard litter on each acre Joaquin valley of California and the of the ground. Should this not be

available, the commercial fertilizer. "It is known that some of the orcomposed of equal parts of nitrate of ganisms producing disease in pota- soda, rock phosphate and muriate of

toes remain alive in the soil for at potash may be applied at the rate of least three years, even though no 400 pounds to the acre. This can be potatoes are grown on the land dur- applied broadcast over the field and results with the Earliest of All. This ing that time. Consequently it becomes necessary to practice longer organisms may die out of the soil in order to increase the yield of pobefore potatoes are again planted on tatoes.

The ground should be plowed in the fall and left lie in the rough. As early in the spring as the soil can be turned it should be plowed again, worked down fine and the po-

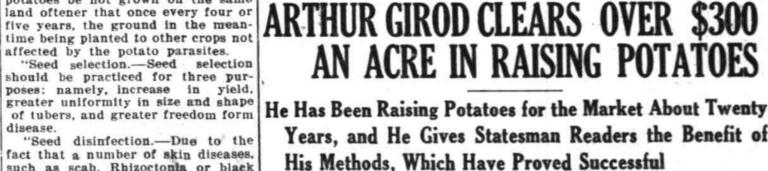
tatoes planted. Cut furrows 30 inches anart with plow running six inches deep. Drop a piece of seed potato, having two or three eyes, about 18 or 20 inches in each row and cover. afterward heit and if the storage place is kept leveling the ground over the entire

tract. Cultivate every two weeks or

after each rain. I have found the Early Rose a strong grower and a good yielder. But it is a pink potato and must be marketed before any of the white varieties are offered. The Beauty of Hebron is also an excellent early potato and, while not quite so pink in color as the Early Rose, it is discriminated against by buyers in favor

of the white potato. A potato that is white and at the same time early is the most profitable kind to grow.

I have gotten most satisfactory very early and may be marketed in



Editor Statesman:

In answer to your request. I en- ground in bad shape.

help some.

market about 20 years, all the way els per acre for market and from sides, which, when the days

There are a number of distinct rots of potato tubers caused by different organisms and almost without exception they are most severe when the storage temperatures are high and when the air becomes heavily laden with moisture, due to lack of proper ventilation. For instance, neither the powdery dry rot which is so common in the eastern part of the state, nor the dry rot which is apparently widely distributed all over the state will develop seriously in storage if the temperature is Tept at from 34 to 38 degrees Fahren-

rounding of the tubers with favor-

able conditions. The successful stor-

age of potatoes is dependent on the

temperature at which they are field.

the moisture content of the air, the

size of the storage pile, and the ex-

clusion of light. Given mature, un-

injured tubers, the two factors most

commonly responsible for poor stor-

age results are too high tempera-

tures and insufficient ventilation.

well ventilated. Pre-Cooling.

Potatoes in large quantities should never be placed directly in storage if they have become heated by high day temperatures. They should first be thoroughly cooled to prevent as far as possible the natural heating which takes place and to start the storage period under as favorable conditions as possible. This cooling may often be done with convenience and economy by leaving the potatoes outside the storage place until well cooled by night temperatures and then moving them into storage either late at night or early in the morning before they have had an opportunity to become heated again by ex-

ternal conditions. Potato Storage Cellar.

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A good storage place embodies the folowing requirements: Ease and thoroughness of ventilation. ability to prevent rapid changes in temperature inside in response to rapid changes in the temperature of the atmosphere outside, convenience in cleaning, conveniently arranged for use, ample in size and durable. In many sections of the United States where potatoes are an important cash crop these essentials are most efficiently secured in the cellars constructed half underground and half above, with three or more ample sized ventilators in the top, and with large doors and a driveway in at one end large enough to accommodate a wagon for convenience in loading or unloading the potatoes.

### Storage Bin.

Another type of storage place used with much satisfaction in this state close the following hoping it may little more to dig, but somewhat less is the double-walled, sawdust-lined bin with the walls about six inches I have been raising potatoes for As to yield, from 125 to 250 bush- thick and with ventilators in the are

the temperatures are too low as well

as when they are too high. With

the dry rot it appears that the criti-

cal time, the time when much of the

loss from this disease results, is dur-

ing the first two months after dig-

ging, when the temperatures are apt

to be higher than during any other

part of the storage period. It is at

this time that our potatoes need es-

pecially to be surrounded by the

favorable storage conditions that are

best secured only in a good storage

Disinfection of Storage Place.

and particularly those in which rot-

ting ofpotatoes was bad the previous

year, should be thoroughly cleaned

and disinfected before potatoes are

again placed in storage in order to

kill all the potato rot-producing or-

ganisms already present and thus to

new crop. To accomplish this, the

walls and floors may be thorough-

ly swabbed or sprayed until wet with

Copper sulphate (bluestone) 1

Formaldehyde 1 pint, water 10

After being thus disinfected the

storage place should be well aired

and dried before potatoes are again

either of the following solutions:

ound, water 10 gallons; or

prevent widespread infection of

All regular potato storage places,

place

gallons.

placed in it.

worked into the soil by tillage. It is a white potato, slightly oblong, of may not always be found profitable medium size and of good quality rotations than this in order that the to use expensive commercial fetilizer If planted on warm soil it matures advance of the Early Rose.

to pick up.

small market size is the average hill if we get a stand. Two good market notatoes or one pound give us what we consider a good crop. Three lbs. per hill represent a bumper crop, yet the writer has seen 15 pound hills. and THERE IS A RECORDED YIELD IN SCOTLAND OF MORE States department of agriculture, se THAN 2000 BUSHELS AN ACRE. Do our potato hills actually average 10.9 ounces? I think they do a little better than that, but there are not 11,000 plants an acre or a full stand.

Why is there only from 50 to 83 percent of a stand in so many fields? There are several reasons. (1)

Too small a seed piece; (2) diseased seed; (3) poorly prepared seed bed; (4) with the "picker" types of planters disease to make good seed. when not properly adjusted and watched; |(5) careless cultivation.

The small seed piece is often without an eye or at least a good strong plant. Often the small pieces dry and point out mixtures and diseased out and do not sprout at all. Seed pieces for average soil should weigh 11/2 to 2 ounces and carry at least two eyes.

The blossom or seed end piece to other plants or get too well estabshould not be split, but should be cut off from the potato so it will weigh 1 1/2 to 2 ounces and be planted

### The Valentine Gift Supreme A Box of Spa Chocolates

A large assortment of Red Heart Shaped boxes, filled with an excellent selection of our best chocolates will fittingly express the sentiment of the day.



**ROTH GROCERY CO.** STAPLE AND FANCY GROCERIES

FRESH FRUIT AND VEGETABLES

North Liberty Street



466-474 State Street

Another reason for low hill yields is disease in the seed stock. Blackleg. rhizoctonia, curly dwarf, mosaic and wilt all take their toll and result in unproductive plants.

Why the low yields per hill?

Principally because of poor seed

stock and disease. Too many people

Last year the Oregon Agricultural college, co-operating with the United cured a lot of the best recognized seed lots of the state and planted them under comparable conditions at the Station at Corvallis, The yields varied from 17 to 288

bushels an acre. Some difference. and largely determined by good and poor seed stock.

### Seed Inspection.

To meet this situation the college proposes to inspect and certify fields improper planting, especially pure enough and free enough from The plan is as follows:

> Persons desiring this work done plants to the grower. If the field is good enough he will recommend to the grower that diseased plants be removed before the diseases spread

lished in the soft. What does a poultryman do with sick chicken?

Usually chops off its head, and dispose of it so the rest will not con- means. tract the disease.

What does the potato grower usually do in a similar situation? He, than one and seven-eighths (1 7-8) strange to say, usually lets the disease spread and multiply.

Later inspections are completed. and if the diseases and mixtures are rogued out sufficiently and the field inspection is made and, if satisfac-TRUE TO VARIETY and to be FREE FROM SERIOUS AMOUNTS OF DIS-EASE.

It may be necessary to charge a light fee to cover part of the expenses of this work, but the college hopes the financial situation will be relieved so the service can be rendered without asking growers to jured to an extent readily apparent pay anything for it.

By following out this plan the far- and that any damage from the causes mixed varieties, run out seed and mer gets acquainted with the dis- mentioned can be removed by the culls which have been planted for eases and their control and eradica- ordinary processes of paring without the last 10 years.

DATES OF SLOGANS IN DAILY STATESMAN (In Twice-a-Week Statesman Following Day)

Loganberries, Oct. 9. Prunes, Oct. 16. Dairying October 23. Flax, October 30. Filberts, Nov. 6. Walnuts, Nov. 13. Strawberries, Nov. 20. Apples, November 27. Raspberries, December 4. Mint, December 11. Great Cows, December 18. Blackberies, December 25. Oherries, January 1, 1920. Pears, January 8, 1920. Gooseberries, January 15, 1920. Corn. January 22, 1920. Celery, January 29. Spinach, February 5, 1920.

(It will interest some people to know that these back copies are selling fast-that, nearly every day, orders are received from near and distant points for the whole series. They will be sold out before the Boston Transcript. fifty-two Slogans are completed, without doubt .- Ed.)

been free from disease, but such cas- late blight or early blight, spraying es are very rare. In every section of of the potato plant must fre- from five to twenty acres each year the United States, and of the world. quently be resorted to. with varying success.

"Storage conditions."-(The cirin fact, where potatoes have been grown continuously or very fre- cular of Professor McKay on this clover, especially when pastured. quently on the same pieces of ground subject is printed in full in this is- do not plant on the same ground ofover a considerable area of several sue.

MR. MANGIS SAYS WE CAN COMPETE WITH ANY MARKET IN THE STATES

But He Says Our Farmers Must Select Pure Seed, Cultivate Thoroughly, Grade Carefully, and Pack Attractively, in Order to Get Best Prices

Following are, the revised potato appreciable increase in waste over will make application to the College grades recommended by the Depart- that which would occur if the potafor the field inspections. The col- ment of Agriculture and the United skin (epidermis) only shall not be eye, and so fails to make a strong lege expert will examine the fields States Food Administration, effect- considered as an injury to the apive Feb. 10, 1919: pearance.

"U. S. Grade No. 1 .- This grade shall consist of sound potatoes of est dimension at right angles to the similar varietal characteristics, longitudinal axis. which are practically free (a) from dirt or other foreign matter, frost injury sunburn, second growth, growth causes mentioned can be removed by cracks, cuts scab, blight, soft rot, dry rot, and damage caused by dis- out increase in waste of more than

"The diameter (b) of potatoes of perfect. the round varieties shall be not less inches, and of potatoes of the long ever cause. -"Charles J. Brand,

varieties one and three-fourths (1%) inches. "In order to allow for variations incident to commercial grading and is nearly enough disease free, a bin handling, five per centum by weight of any lot may be under the pretory, the seed is CERTIFIED TO BE scribed size, and, in addition, six per centum by weight of any such lot may be below the remaining requirements of this grade; but not other principal potato growing states

of the entire lots, may have the flesh injured by softrot (d). "Explanation of Grade Require ments .- a: 'Practically free' means tha the appearance shall not be in-

Onions. February 12, 1920.

Bees, February 26, 1920.

Mining, March 18, 1920.

Hogs, March 25, 1920.

Land, April 1, 1920.

Angora Goats, April 22.

Sheep, April 15.

Hops, April 29.

Poultry, May 6.

address.)

Paper Mill, March 4, 1920

Dehydration, March 11, 1920.

National Advertising, April 8.

Potatoes, February 19, 1920,

more than two per centum by weight and to compete with these states the Oregon growers must put up a pack at least equal or better than they do. This can only be done by intelfigent seed selection and cultivation. It is almost impossible to grade the average Oregon crop to comply

January 27, 1919.

Editor Statesman:

upon casual examination of the lot, with these rules, on account of the

Too many growers think they are economizing by buying cheap seed, where, as a matter of fact, it is the rankest extravagance. It is easy to see that where you save \$10 per acre in buying poor seed you cut your yield of merchantable 'potatoes from 30 to 50 per cent, and second grade potatoes.

Select pure seed of good size and of some good commercial varieties; Burbanks, Netted Gems, 'American Wonders, White Rose, Red Rose and Garnets are the best.

Plow your soil at least twice; do most of your work before you plant. and you will produce good stock. Then grade them carefully, using (Back copies of Salem Slogan good clean grain sacks, and we can editions of the Daily Oregon compete with any market in the Statesman are on hand. They are United States. -F. Mangis, for sale at 5c each, mailed to any of Mangis Bros. Salem, Or., Feb. 17, 1920.

> "He made his pile, but worked himself to death doing it." "A sort of funeral pile, ch?

My biggest yield has been after tener that six or seven years, in rotation with other crops.

I begin to prepare the ground by plowing in December or January. nine or ten inches deep; then about April first or as soon as the land is dry enough, spread from five to eight loads of barn manure per acre; then disc both ways, harrow both ways, then wait until about the middle of May. 1 then spring tooth

both ways, then clod mash or roll the land so as to have it in nice shape for marking. I use the marker only one way, making the rows 38 inches apart and I plow across the Three plowings, per acre .... \$9.00 marks, planting every third furrow. planting in line with the marks.

plant the Burbank variety only for Twice with spring tooth, per a late crop, as it is hard to keep from missing if you raise several varieties.

You can't be too particular in sorting seed; use only the smooth and Planting (a boy can plant two

"b .- 'Diameter' means the greatbest, from 31/2 to 5 inches long, cutting so as to leave two eyes, and being careful not to cut more than one "c.- Free from serious damage means that any damage from the day before planting for best results. I usually harrow and clod mash each day's planting, then in about three the ordinary process of paring withweeks, or as soon as the rows can ease, insects or mechanical or other 10 per centum by weight over that be seen, harrow once; then when which would occur if the potato were the plant is about two inches high begin cultivation, cultivating four

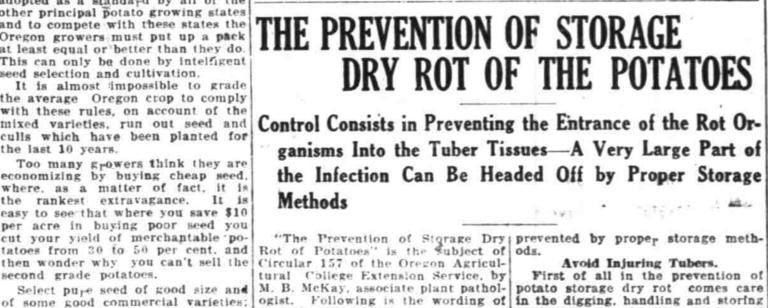
"d-'Soft rot' means a soft, musky times with a two horse cultivator. condition of the tissues from whattwice each way, and one hoeing, unless it is a wet season; in that case, Chief of Bureau of Markets, U. they may require five cultivations S. Department of Agriculture' and perhaps have to be hoed twice.

usually begin digging from Novem-(No demand or sale for No. ber 1 to 15 or a few days after the

means

grade so there is no use to publish first killing frost. Have tried the digger but find it leaves a great

many in the ground, and also cuts The above grading rules have been some, spoiling for the market some Feb. 16 adopted as a standard by all of the



that circular in full: of the tubers so that they are injured In Oregon hundreds of tons of po- as little as possible. It is almost but tatoes are lost annually from storage not quite true that a mature potadry rot. There are several distinct to with a sound skin. if kept in a types of storage rot caused by dif- well ventilated storage bin, will not ferent fungous or bacterial organ- rot. At least it can be safely said isms working within the tissues of that over 95 per cent of the tubers the tubers. Fortunately, in most cas- which do rot in storage from dry rot es the control of these different rots suffer from serious wounds first and is accomplished by nearly identical then rot afterwards. If potatoes are Nothing can be done to ov- to be kept in storage for any consid-

ercome the rots after they are once erable length of time, they should established within the tuber. Con- be thoroughly mature before being right away." It relieves coughs, colds trol, therefore, consists in prevent- dug, since immature tubers are very ing the entrance of the rot organ- readily injured. isms into the tuber tissues. A very Provide Favorable Storage Condition branes and stops tickling in the large part of this infection, and there The second essential thing for rot throat. Foley's is the original and

fore of the waste from rots, can be prevention during storage is the sur- genuine Honcy and Tar. J. C. Perry.

warm, may be left open at night and 25 to 40 bushel of culls, according kept closed in the daytime, with the to seasons result that the whole bin is kept My average crop is probably 175

of the best, besides leaving the

I use the potato fork: it costs a

reasonably cool all the time. bushels per acre for market. storage places should be provided The culls make a splendid feed for with a thermometer, so that the temivestock. peratures may be regulated intelli-gently. Injury is produced when

The least I received a bushel, 24 cents for 1912 crop; highest, 1915 crop. from 31/2 to 41% cents per pound, selling in small lots. Before the war good money could be made at 40 cents a bushel; with present prices of labor, etc, 60 to cents brings in hetter net returns than grain crops, besides leaves the

ground in splendid shape for wheat. Most of the work can be done at time when the other farm work is not rushing. As to cost, I place it at \$67.95 per acre.

Two discings, per acre ..... 1.65 Six harrowings, per acre .... 3.00

acre ...... One clod mash or rolling, per асте .

Four cultivations, per acre .. 4.00 acres a day) per acre ..... 2.50

Seven bushel of seed at market price 3 1/2 c a pound, per acre 14.10 Plowing once, per acre ..... 2.00 Total expense of raising ...\$38.45

Now add \$14.00 for digging: hauling, \$7.50; sacks and twine, \$8.00 .....\$29.50 Grand total, raising and marketing, per acre .. .....\$67.95

With an average yield of 175 bushels at \$2.10 per bushel .....\$367.50 30 bushels of culls at 25 cents

Yours respectfully,

-ARTHUR GIROD, Salem, Or., Route 8, box 183,

**MONEY ON SANTIAM BOTTOM LAND** 

Editor Statesman: I suppose it is too late, but will

give you a few lines. I raised 20 acres of potatoes last year, Netted Gems, and raise every

year than many. Cost of production runs from \$40

to \$50 per acre. I had a small crop this year; 150 bushels per acre. which I sold at 2 1-2 to 4 cents a pound, which is surely profitable, because I have good soil of the Santiam bottom, which is as good ground as any any-

where, for potatoes. I have raised potatoes for 25 years and think it is as good a crop as any

I can raise, year after year. Netted Gems I think are a little better thanBurbanks at present, as the market demands them.

-C. Thiessen, Jefferson, Or., Feb. 16, 1920.

See Luther J. Chapin article in first section; published there on account of lack of room in this section.

YOU CAN'T BE TOO CAREFUL Eisie O'Brien, R.F.D. 7, Vincennes, nd., writes: "One bottle of Folgy's Honey and Tar Broke up my cold croup and whooping cough; clears the passages, soothes irritated mem-

