

Potato ...

(Continued from Page 3)

quirements totaled another 19.2 million hundredweight (eight per cent).

Estimates of potato utilization in 1956 are divided among: fresh stock sales, 55 per cent; sales for chips, 12 per cent; sales for french fries, two per cent; all other food processing, three per cent; seed use, eight per cent; food use on farms, five per cent. Diversion to starch and livestock feed 16 per cent.

Marketing the Basin's Crop

In Klamath Basin, diversion to livestock feed included 1,239 cars (448,000 hundredweight) of potatoes of U.S. 2 or better grade and over two inches in diameter. Mixed with this was a greater quantity of culls and smaller sizes. Shipments for table stock and seed totaled 8,558 cars (3,000,480 hundredweight). Diversion to livestock feed was over 25 per cent of the field run production.

Except for government diversion payments, growers received little or no return for many of the culled potatoes taken by stock feeders. Diversion payments totaled \$183,664, an average of about 40 cents per hundredweight for eligible potatoes and less than 20 cents per hundredweight when averaged over the entire tonnage culled.

The livestock feed outlet might bring returns near to those obtainable from starch manufacture if it were possible to sell culls at near their feed value. A cooperative starch plant probably could pay more for culls than feeders can. Heavy stocks of cull out and lack of competition for the supply resulted in poor returns or no returns for growers. Potato feeding also reduced outlets for hay and grain.

Diversion of such a high percentage of production at returns below cost of handling and storage and no return for harvesting and production costs points to need for a more remunerative outlet and suggests starch manufacture, possibly combined with a granule or flake processing plant, as a solution. A volume of over one million hundredweight of cull out available over an eight month shipping season is considered an adequate supply to justify a processing plant.

Processed products such as granules for instant mashed potatoes and frozen items are competing with fresh stock at least in institutional trade. As availability of processed potatoes increases a smaller percentage of production is likely to be sold as fresh stock. Carryover of storable processed products from one season to another can also be expected to reduce occurrences of periodic shortage and reduce possibility of periodically higher prices. Profits in potato production may largely depend on high yields of quality potatoes.

Competition among producers and production areas can be expected to maintain a high average level of supplies which combined with consumer insistence on quality packs is likely to require continued marketing agreement size regulation at two inch minimum diameter or above.

September and October shipments from Washington and Central Oregon compete vigorously during those months. Competition from California winter dug potatoes appears to be increasing.

Acreage, yield, shipment and income statistics for potatoes printed elsewhere in this report show we have marketed a high of 11,629 and a low of 7,763 carloads of table stock and seed since 1950. White rose certified seed has accounted for about 15-18 per cent of annual shipments.

The Basin has marketed a high of about 9,700 and a low of about 7,000 cars of table stock during that period, and apparently has a market largely in the Bay Area and Northern California which can take around 8,500 cars of quality table stock in years of average competition.

It appears that the Basin has a market for around 18,000 acres of seed and table stock and that potatoes can be profitably grown on the soils capable of producing high yields and good quality. Best results with russets can be expected

from the well leveled, well drained lighter textured soils not seriously infested with wilt and in which fertility is properly maintained by rotations with legumes.

The certified seed market for which the White Rose variety is grown appears adequate for production of somewhere around 3,500 acres provided high quality seed is produced. Loose lake bottom peat and muck soils grow this variety well.

The county is well suited to production of vigorous seed of good quality. Control of virus diseases offers the best opportunity for retaining the White Rose seed business and of developing additional certified seed business with Netted Gems and other varieties including Kennebec which is in demand as seed stock for chip contracts. Production for chip manufacture would involve temperature control in storage and use of sprout inhibitors.

Until recent years, Klamath County had produced the larger proportion of the potato crop. In recent years, increased production in the Tulelake area has resulted in nearly as much production outside of the county.

Disease - Problems

Recognition of Verticillium wilt as the cause of early maturity disease and the small sizes and reduced yields it causes definitely classes this soil borne fungus as the major potato production problem.

It is recommended that Extension Service and Experiment Station efforts to find solutions be continued, and speeded up if possible. Destruction of vines and the spores produced in them, soil fumigation with Vapam or chloropicrin to destroy high spore populations in soil and rotations and high organic matter levels appear to offer the best fields of investigation. Varieties with wilt resistance such as Menominee are another approach.

Vapam and chloropicrin should be checked thoroughly for effectiveness in controlling nematode at the rates required to control Verticillium. These materials might become practical on soils infested with both pests, particularly if prices are reduced.

Dowfume, DD, and now, Telone have been proved effective nematocides. Telone needs to be checked out at lower rates than 25 gallons per acre to determine a minimum effective rate in this area.

Leafroll is a serious virus disease that continues to be a threat to quality. Good seed is the best assurance of producing russet crops reasonably free of the net necrosis or "internal browning" cause by current season infection (virus spread from infected to healthy plants). Seed carrying more than one per cent leafroll infection may produce crops with more than the five per cent U.S. No. 1 grade tolerance for internal defects.

The seed certification program carried by the Extension Service, including greenhouse testing, has provided adequate supplies of good seed for commercial plantings and is of primary importance to both commercial and seed growers.

Lands free of nematode infestation should continue to be used for certified seed production, particularly in outlying areas with less potato acreage concentration and better isolation.

Unit planting, aphid control and early roguing are A, B, C requirements for good seed production, second only to use of good quality seed for planting stock.

Effectiveness of several newer insecticides in control of aphids in potato seed fields has been demonstrated. Systox sprays applied to young plants at two-pint rates (one-half lb. active material) per acre has given very effective aphid control into August, and is a recommended control measure. Diazanone, Endrin and Dieldrin have given good control in extensive August trials. Zero residue tolerance for some of these control materials makes general use recommendations impossible without additional experience. Endrin at one-half lb. per acre has been very effective, with ground applications. (Air applications at eight-tenths lb.)

The bacterial disease, ring rot, continues to be a matter of concern requiring strict sanitation on the part of seed producers. The disease has caused only minor

economic loss in commercial crops in recent years largely because lots in which it has been found have generally been discarded immediately for seed purposes.

Disinfection of equipment and storage and use of clean bags are precautions against spread or introduction. The 90-minute mercuric chloride dip for whole seed is a good preventive measure. Semesan Bel dip for cut seed also gives protection as does addition of the antibiotic terramycin to the Phygen dip which is becoming increasingly popular on cut seed because it permits an extended period of holding between cutting and planting. Agrimycin has been reported to reduce incidence of blackleg also, probably because seed piece rot is reduced.

The importance of adequate humus in potato land cannot be over-emphasized. Plant nutrients can be supplied by use of commercial fertilizers but the mechanical structure of the soil deteriorates as organic matter decreases. Poor root development occurs in such puddled soils. Irrigation is complicated. A soil well supplied with humus takes water much better and holds water much better than a soil depleted of humus. Loose soil structure of soils well supplied with organic matter results in higher yields of smoother tubers of better type.

Rotations

It is thought that the practice of cropping potatoes two consecutive years or longer in an alsike clover, potato, grain rotation has

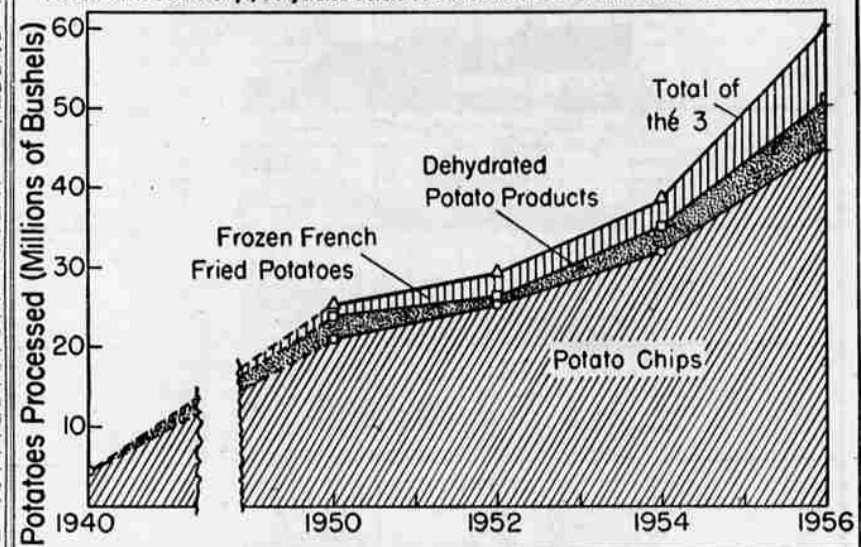
depleted organic matter below optimum levels. A rotation of one year of grain and one or two years of clover may not maintain organic matter at high enough levels for satisfactory production when followed by two consecutive years of potatoes.

In such a rotation, potatoes occupy the land 25 per cent and 40 per cent of the time when one potato crop and two consecutive potato crops are grown following two years of clover. When clover is grown only one year and only one year of potatoes occurs in the rotation, potatoes occupy the land one year out of three.

With alfalfa rotations, potatoes occupy the land 28 per cent of

(Continued on Page 6)

Production of Potato Chips, Dehydrated Potato Products and Frozen French-Fried Potatoes 1940-1956



IN THE KLAMATH BASIN

FORD TRUCKS & PICK-UPS

Lead the Field!



And... there's a reason! Ford trucks and pick-ups cost less! First cost is low, and resale value is high, and Ford's famous Short-Stroke power means low operating costs, less maintenance.

A ten-million-truck research study proves Ford trucks last longer. The big fleets buy more Ford trucks than any other make!

Let us show you all the "Cost Less" Advantages of Ford Trucks and Pick-Ups... Call Us Now!

BALSIGER MOTOR CO.

Your Ford Dealer Since 1923

Main at Esplanade

Phone TU 4-3121