RECLAIMING AND MARKETING COTTON GIN MOTES

CONTENTS

SUMMARY

Cotton gin operators may be able to increase their income by reclaiming gin motes--a byproduct of cotton ginning consisting of any gin waste usable for its fiber content.

Sale of the potential supply of motes would provide several million dollars of revenue a year for ginners, estimates show. Prices for baled motes were 3 to 5 cents per pound in the 1962-63 season. Loose motes brought 1.5 to 2.0 cents per pound. Net profit to ginners per 500 pounds averaged approximately $13 to $16 for baled motes and $8 when sold loose.

The average cost in 1962-63 of collecting and packaging a 500-pound bale of motes ranged from $5.29 in the Texas High Plains to $8.75 in the Midsouth, including bagging and ties. For loose motes it cost an average of 32 cents to collect 500 pounds. There are no bagging and tie costs, no additional power costs, and little or no labor costs.

Largest outlets for gin motes are the bedding, automotive, and furniture industries. They use large quantities of cotton batting composed of approximately 60 percent linters, and 40 percent cotton waste and gin motes. These industries probably can absorb all available motes at prices substantially above costs.

The purpose of this report is to help ginners determine whether reclaiming would be profitable for their particular enterprise. Data are provided on methods and costs of collecting gin motes, supply and value of motes, grading and pricing practices, and market outlets.

RECLAIMING AND MARKETING COTTON GIN MOTES

by Shelby H. Holder, Jr. and Zolon M. Looney 1/

Most large industries handling products in their raw form have ultimately discovered ways to convert processing waste into valuable byproducts. In the ginning industry, cottonseed was the first ginning byproduct to receive widespread recognition for its use value. Another byproduct that has more recently received attention is gin motes. The term gin motes, as used in the trade, refers to any gin waste usable for its fiber content. It consists primarily of lint cleaner waste, but may sometimes include motes from the gin stand.

Because of a widespread shift to mechanical harvesters, and accompanying increases in multiple lint cleaning, the quantity of motes removed during ginning has greatly increased. Ginners now have enough gin motes to make reclaiming economically feasible. Any returns above the cost of collecting motes is net profit, since the common practice has been to burn them. Some ginners have found an added economy in selling their motes, because this alleviates the mote-disposal problem. Incinerators which formerly burned other gin waste satisfactorily have sometimes become troublesome because of the smothering effect of lint waste; the gin trash smolders rather than burns quickly. This results in a smoke problem with attendant complaints from health authorities and others in communities where gins are located. Also, more frequent cleaning of incinerators is necessary, which increases labor costs.

OBJECTIVES

Many ginners in the Southwest and West have reclaimed and sold gin motes for several years, while only a small proportion of ginners in the south-central area of the Cotton Belt have adopted this practice. Thus, some ginners are currently trying to determine whether it would be profitable to save gin motes; and if so, the method of collecting and handling which would be most profitable and satisfactory.

Information is needed that will help ginners make sound decisions concerning mote-reclaiming systems for their gin plants and aid in better understanding of mote marketing. Therefore, this study was designed to provide data on (1) methods and costs of collecting gin motes; (2) market outlets and value of these motes; (3) estimates of gin mote supply; and (4) the marketing of gin motes in terms of types of firms, and grading and pricing practices.

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SCOPE AND METHOD OF STUDY

During the 1962-63 season, data were collected from 18 gins on methods of handling gin motes, yield turnout figures, motes sold, prices received, capital investment in building and equipment, operating expenses, and outlets. Estimates on potential supply of gin motes were based on data from research on multiple lint cleaning, and on actual results from the sample of gin surveyed. 2/ Personal interviews with mote-buying firms and end-users provided data on market outlets and potential uses, and mote marketing in general.

METHODS AND COSTS OF COLLECTING GIN MOTES

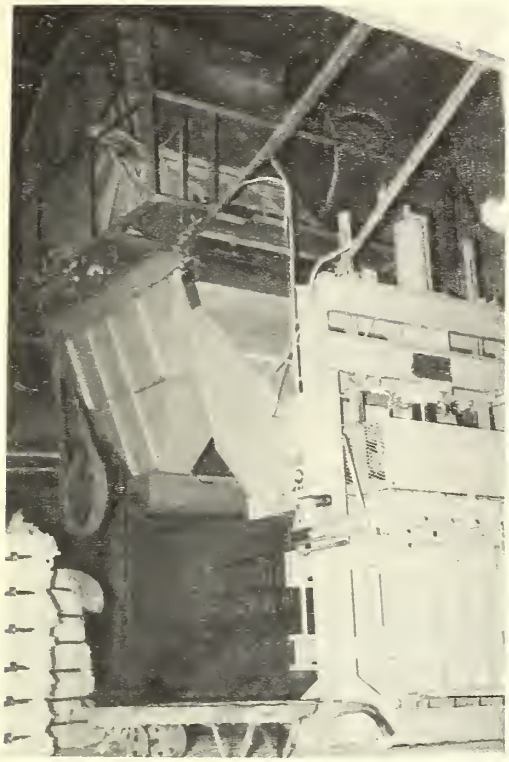
In the Midsouth and Texas High Plains, gin motes were usually sold in baled form; whereas, in the San Joaquin Valley of California, they were normally sold in loose form. When motes were baled, they generally received at least some cleaning, which reduced total bulk. Degree of cleaning and amount of weight removed depended upon relative amounts of fiber and foreign material present and type of cleaning device installed.

Some cleaners were commercially manufactured and distributed, while others were a ginner's own design, or a modification of an extractor feeder, airline cleaner, or similar type of equipment. Mote-collecting systems improvised by ginners were basically the same. Such systems included cyclones and vacuum droppers, or condensers, to remove motes from the air stream, and generally some type of mote cleaner. Where no cleaning device was used, motes were dropped directly onto the lint slide and then allowed to fall into the press box. When gin press boxes were used, they were most often the double-box, downpacking type. A double-box press enabled the mote house attendant to tie out a bale without shutting off the mote-collecting system. This was achieved in commercial mote-collecting systems, which have only one press box, by using a slide box with sufficient capacity to hold motes until the bale was tied. The mote-collecting system was usually housed in a building separate from the gin plant (fig. 1A).

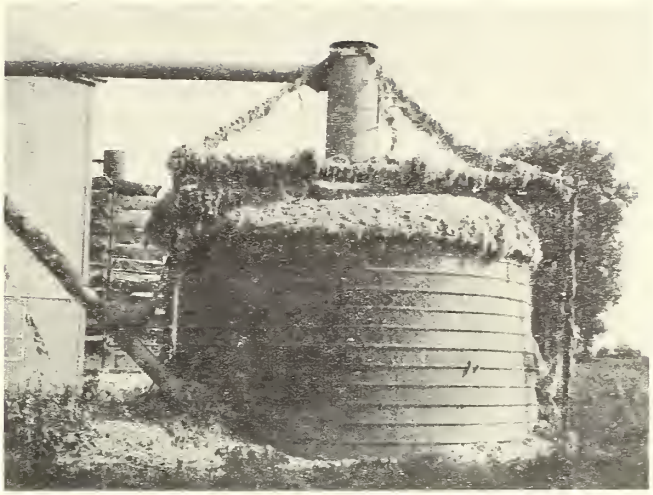
Motes sold in loose form, and not cleaned at the gin, were blown directly into cyclones, where they fell into an enclosed bin or trailer (fig. 1B and 1C). Bins were of various types and capacities, but most trailers were designed to hold approximately 4,000 pounds of loose, uncleaned gin motes. Motes were picked up at regular intervals in accordance with arrangements made by mote-cleaning plants. 3/

2/ Looney, Zolon M., La Plue, L. D., Wilmot, Charles A., and others. Multiple Lint Cleaning at Cotton Gins, Effects on Bale Value, Fiber Properties, and Spinning Performance. U.S. Dept. Agr., Econ. Res. Serv., Mktg. Res. Rpt. 601, 1963.

3/ Mote-cleaning plants are establishments that buy loose or baled motes, clean them by various methods, and bale them for resale.



A. Mote-baling facility



B. Bin for collecting loose motes

C. Trailer for collecting and hauling loose motes.

Figure 1.--Three mote-collecting facilities at cotton gins.

Capital Investment

Before ginners can make sound decisions on whether to install mote-collecting systems, they must have estimates of capital investment and operation expenses for the various systems available, and of returns to be expected. Ginners may sell loose motes with little or no investment, but construction of mote-collecting systems necessary for marketing baled motes requires an investment of several thousand dollars. Among gins that had mote-collecting systems, investment in building and equipment ranged from $4,900 to over $12,000, depending on building materials used and whether equipment was improvised or commercial. Gins using secondhand and improvised equipment had average capital investments of $5,673, and those with factory-built mote cleaners and presses had average investments of $9,467 (table 1).

Table 1.--Average mote volume and average capital investment for typical mote-collecting facilities in gins surveyed, specified areas, 1962-63 season

Area	Average mote volume		Average capital investment							
			Baled mote-collecting system						Loose	
			Improvised			Factory-built				
	Total	Per bale 1/	Bldg.	Equip.	Total	Bldg.	Equip.	Total	Bin	Trailer
	Lbs.	Lbs.	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.	Dols.
Midsouth 2/...	112,979	24	1,185	4,750	5,935	2,000	6,900	8,900	--	--
Texas High Plains.....	231,610	19	1,950	3,200	5,150	2,350	7,400	9,750	--	--
San Joaquin Valley.....	173,081	21	--	--	--	--	--	--	710	1,500
Average 3/...	184,545	20	1,440	4,233	5,673	2,233	7,234	9,467	--	--

1/ Per bale of cotton ginned.
2/ Only one survey gin in the Midsouth had a factory-built system.
3/ Weighted average.

Buildings that housed mote-collecting systems were either steel and sheet metal throughout, or concrete block walls with sheet metal roofs. Floors were generally concrete slab. In the Midsouth, these buildings were commonly 20 to 25 feet square with walls 20 feet high. In the Texas High Plains, most common dimensions were approximately 20 x 30 feet with walls 10 to 15 feet high. Construction costs for these buildings, including labor and materials, ranged from about $1,000 to over $3,000, and averaged $1,440, depending on materials used. Some ginners in the Midsouth constructed additional facilities for storing baled motes to protect them from rainy weather.

To get larger volumes of motes, some mote-cleaning plants installed mote bins at gins, or furnished trailers at no cost to the gin owner. This was

an especially good arrangement for low-volume gins, and for gin owners that did not want to invest money in a mote-collecting system. When bins or trailers had to be provided by the ginner, the average cost was $710 for bins and $750 for trailers. Actual investment in trailers would be $1,500, or more, depending on the number of trailers. It is necessary to have at least one on hand for loading at all times.

Fixed Costs

Fixed costs are those that must be paid even when the mote-collecting system is not in use. Such costs include depreciation on building and equipment, interest on investment, insurance, and taxes.

Depreciation of building and equipment was figured by the straight-line method at 5 percent of the average replacement cost. Interest on investment was computed at 5 percent of one-half the original investment.

Insurance rates varied considerably by areas because of differences in construction materials and degrees of fire protection available. To determine insurance costs for building and equipment, rates used were 44 cents per $100 coverage in California, 80 cents in the Texas High Plains, and $1 in the Midsouth (see footnote 2). It was assumed that mote-collecting systems were insured at the same level as gin plants. In California and the Midsouth, gin plants were generally insured at 80 percent of actual cash value and at about 85 percent in the Texas High Plains.

Gin products and bale yard insurance varied, depending on the length of time insurance was in effect and the value of products expected on the yard at a given period of time. Such insurance was needed only about 4 months of the year. Based on an insured period of this length, gin products and bale yard insurance averaged $1.78 per $100 coverage. Cost of insurance covering the gin motes operation was based on the assumption that no more than 60 bales of motes, one truck load, would be on the gin premises at one time. Tax rates and methods of assessment varied within areas and among areas. Levels of assessment in the survey areas ranged from 16 percent in the Texas High Plains to 25 percent in the San Joaquin Valley. Average rates used for estimating tax cost per $100 assessed valuation were $4.85, $1.90, and $6.50 for the Midsouth, Texas High Plains, and San Joaquin Valley, respectively.

Variable Costs

As the output of bales of motes increases, there is a corresponding increase in variable costs. Variable costs include such items as labor, power, bagging and ties, repairs, and maintenance.

Almost two-thirds of the gins that baled motes had a full-time attendant caring for the mote-collecting system. When only a part-time attendant was necessary, some member of the gin crew was given this responsibility, usually the yardman. Generally, from one-fourth to one-third of his working day was spent in caring for the mote-collecting system. Labor rates for mote attendants averaged $1.25 per hour in the Texas High Plains, and $0.93 in the Midsouth.

Horsepower used to operate mote systems ranged from about 10 to as much as 50, with an average of approximately 23. The average of 23 horsepower was a representative figure for both the Midsouth and Texas High Plains, and was used in determining energy requirements in both areas. Energy costs per bale varied widely, mainly because of variations in time required to collect a bale of motes, differences in electrical rates, and variations in connected horsepower. Motes collected per bale of lint averaged about 20 pounds. Thus, it would take a gin with a capacity of 6 bales per hour over 4 hours to collect one bale of motes; but, with several gins on the same yard, all blowing motes to the same mote-collecting system, a bale could be accumulated in as little as one-half to three-quarters of an hour. Thus, power requirements per bale of motes collected could range from 10 to 45 kilowatt-hours. 4/ At a cost of 3 cents per kilowatt-hour, this would be $0.30 and $1.35, respectively, or a difference of over $1 per bale in power costs. Average rated capacity for gins in each area was used to estimate time required to collect a bale of motes. These time periods were used to determine energy requirements in each area.

Annual costs of repair and maintenance vary with volume, but because of lack of data on this relationship, these costs were set at $50 per year for mote-collecting systems and $7 and $14, respectively, for bins and trailers.

Total Costs

The cost of collecting and baling motes ranged from $5.29 per bale for improvised systems in the Texas High Plains to $8.75 per bale for factory-built systems in the Midsouth (table 2). It cost over $2 more per bale to collect and bale motes in the Midsouth than in West Texas, regardless of the mote-collecting system used. Lower costs in West Texas were accounted for mainly by the cost-reducing influence of larger mote volumes on fixed costs. Volume of motes handled for all types of mote-collecting systems combined averaged 226 bales in the Midsouth and 463 bales in the Texas High Plains. In the High Plains, it was common for two or more gin batteries to be located on the same gin yard with one mote system to accommodate all batteries.

For similar volumes, total costs per bale were lower for improvised than for factory-built mote systems, regardless of location. However, higher mote volumes in West Texas made possible more efficient use of mote systems. This resulted in less spread between average total costs per bale for improvised and factory-built systems in that area compared to the Midsouth. Gin operators reported that improvised mote-collecting systems were as satisfactory as factory-built systems. Thus, if used gin presses were available at reasonable prices, ginners could install mote-collecting systems more economically by using such equipment.

The least expensive method of handling motes was to collect them in bins or trailers and sell them loose. Average cost for collecting motes in loose form was 21 cents per bale equivalent when bins were used and 44 cents when trailers were used. Higher cost for trailers was primarily accounted for by

4/ Power required for pressing and tramping was based on data supplied by engineers at Stoneville Ginning Laboratory, Stoneville, Miss.

Table 2.--Average per bale costs of collecting gin motes, by method of collection and by area, 1962-63 season 1/

Item of cost	Type facility					
	Mote-collecting system				Loose	
	Midsouth		Texas High Plains		San Joaquin Valley	
	Improvised 2/	Factory-built 2/	Improvised	Factory-built	Bin	Trailer
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Fixed costs:						
Depreciation	1.31	1.97	.56	1.05	.10	.22
Interest on investment	.66	.98	.28	.53	.05	.11
Insurance	.31	.42	.18	.24	.02	.03
Taxes	.13	.19	.02	.03	.02	.04
Total	2.41	3.56	1.04	1.85	.19	.40
Variable costs:						
Labor	2.70	2.70	1.12	1.12	--	--
Bagging and ties	1.58	1.58	2.58	2.58	--	--
Power	.69	.69	.44	.44	--	--
Repairs	.22	.22	.11	.11	.02	.04
Total	5.19	5.19	4.25	4.25	.02	.04
Total costs	7.60	8.75	5.29	6.10	.21	.44

1/ Bales of gin motes by area averaged: 226 bales per year in the Midsouth; 463 bales per year in the Texas High Plains; 346 bales per year in the San Joaquin Valley. A bale averages about 500 pounds.

2/ Improvised facility is modified used gin machinery or shop-built equipment. Factory-built facility is specially built presses and cleaners for mote collection.

higher investment costs. The higher cost of trailers compared to bins was not offset by the additional expense of removing motes from bins, since the device used for this purpose was generally furnished by the mote-cleaning plant and not by the ginner. If ginners were to furnish this loading device, which commercially costs about $1,200, it would probably cost less to use trailers for handling loose motes.

Depreciation and interest on investment were the largest fixed costs. These items accounted for an average of over four-fifths of the total fixed costs, regardless of type facility used. Fixed costs accounted for virtually all expenses when motes were sold loose.

When motes were baled, labor and bagging and ties were the biggest variable costs. These items accounted for over 80 percent of the variable costs of mote-collecting systems and 49 to 70 percent of the total costs. Labor and power costs were affected most noticeably by the time required to accumulate 500 pounds of motes. Using the average gin capacity of the gins studied in each area, and assuming that 25 bales of lint were ginned for each bale of motes, the time required to accumulate 500 pounds of motes averaged 2.9 hours in the Midsouth and 0.9 hour in the Texas High Plains. Although average labor cost per hour was lower in the Midsouth than in West Texas, the longer time required to collect a bale resulted in labor costs of $2.70 per bale in the Midsouth, compared to $1.12 in West Texas.

Packaging costs were $1 per bale less in the Midsouth than in West Texas, primarily because of the availability of burlap bags at less than one-half the cost of jute bagging. Good used ties were not readily available in either area, necessitating the use of new ties in most cases.

Net Profit

Net profit per 500-pound bale of motes varies, but estimates can be made by using average prices and costs (table 2). Using an average price of 4.28 cents per pound for baled motes, net profit per bale of motes collected would be about $13 to $14 in the Midsouth, depending on whether factory-built or improvised mote systems were used. Net profit in the Texas High Plains would be approximately $15 to $16 per bale for improvised and factory-built mote systems, respectively. Ginners selling loose, uncleaned motes for an average price of 1.71 cents per pound could expect a net profit of approximately $8 for each 500 pounds of motes sold.

Net profit per bale of lint ginned ranged from 32 cents for gins selling motes in loose form to 59 cents per bale for improvised setups in the Midsouth. Gins in the High Plains realized greater net profits per bale of motes collected due to larger gin volumes. However, gins in the Midsouth with higher mote/lint ratios netted slightly more from motes sales for each bale of cotton ginned.

MARKET OUTLETS AND SUPPLY

One of the first considerations of ginners planning to install a mote-collecting system is whether motes can be sold readily at prices substantially above costs. Most mote buyers agreed that there were ample markets for clean motes, but were less certain about very trashy motes. Buyers generally agreed that potential markets for gin motes were very promising. However, there is some uncertainty as to the capacity of the market to absorb at profitable prices the supply that will be available if all ginners collect and sell motes. A look at present market outlets and conditions may indicate future trends.

Market Outlets

Biggest outlets for gin motes at present are the bedding, automotive, and furniture industries. These industries also appear to be the most promising future outlets. Batting used by these industries is a blend of cotton linters, mill waste, gin motes, or staple cotton. The blend used depends on the grade of cotton batting desired. Fine, white grades of batting have either none, or a very small percentage of motes, while lower grades may be composed of much higher proportions of gin motes or mill waste. 5/ Some firms can use only high-grade, low-trash-content batting, while others may safely use batting with a high trash content. Future markets for items produced by firms that use batting with high proportions of trash will greatly influence future demand for gin motes.

The majority of motes sold are blended with linters in making various grades of cotton batting; thus, industries that consume large quantities of batting are good indicators of potential and future outlets for gin motes. The bedding industry, the largest consumer of cotton batting, used almost 302 million pounds in 1961 (table 3). Cotton batting accounted for 92 percent of all batting materials used by the industry. This batting was composed of approximately 60 percent linters and 40 percent waste and staple cotton. What proportion of the 40 percent waste that gin motes can ultimately claim will have an important influence on future demand for motes.

The automotive industry ranks second in quantity of cotton batting consumed. Approximately 120 million pounds were used in production of the Nation's automobiles, trucks, and busses in 1961. This is equivalent to about 18 pounds per unit. According to trade estimates, cotton materials accounted for 58 percent of all batting used in automobiles in 1961. Cotton's percentage share of all batting material used by the automotive industry has declined in recent years. Cotton batting dropped from 93 percent of all batting material used in trucks and busses in 1947 to 67 percent in 1961. This was the largest decrease in use of the material by the automotive industry. However, there is some indication that the industry has not been completely satisfied with some of its substitutes, and may go back to using large quantities of cotton batting. Should this happen, marketing opportunities for gin motes will increase.

5/ Mill waste includes lint and fly accumulated from the picking and carding processes and combing waste or noils from the combing process.

Table 3.--Consumption of cotton batting: Estimated consumption of cotton batting by the bedding, furniture, and automotive industries, 1947, 1951-1961

Industry	1947	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
	Million pounds											
Bedding:												
Total batting	241	307	273	267	317	342	332	290	302	322	311	302
Linters	152	154	142	134	168	205	199	174	181	193	187	181
Waste	89	153	131	133	149	137	133	116	121	129	124	121
Automotive:												
Automobiles:												
Total batting	89	133	108	147	133	182	134	141	98	123	137	111
Linters	53	67	56	73	70	100	74	78	54	68	75	61
Waste	36	66	52	73	63	82	60	63	44	55	62	50
Trucks and busses:												
Total batting	14	16	13	13	10	13	11	10	8	10	9	9
Linters	8	8	7	7	5	7	6	5	4	6	5	5
Waste	6	8	6	6	5	6	5	5	4	4	4	4
Total automotive	103	149	121	160	143	195	145	151	106	133	146	120
Furniture:												
Upholstered furniture:												
Total batting	89	104	98	76	71	80	82	75	67	70	64	55
Linters	55	52	51	38	37	48	51	45	40	42	38	33
Waste	34	52	47	38	33	32	31	30	27	28	26	22
Dual purpose furniture:												
Total batting	18	29	33	34	33	40	39	38	34	37	35	34
Linters	11	15	17	17	17	24	24	23	20	22	21	20
Waste	7	14	16	17	16	16	15	15	14	15	14	14
Total furniture	107	133	131	110	104	120	121	113	101	107	99	89

Source: Adapted from statistics prepared by Richard M. Williams, Market Research Section, Utilization Research Division, Cotton Batting Institute of America.

The manufacturers of upholstered and dual-purpose furniture used approximately 89 million pounds of cotton batting in 1961. However, cotton's share of the batting materials used in this industry has declined over the past 10 years. Batting materials used in dual-purpose furniture were 88 percent cotton in 1951, and only 61 percent in 1961. The proportion of cotton batting used in upholstered furniture has dropped from 78 to 30 percent during this same period.

Future research may reveal other important outlets for gin motes. Recent development of special resins for treating cotton batting has improved its structural stability. This should result in increased use of batting by all major outlets, especially the automotive industry which has shown particular interest. Greater use of cotton batting by its major industrial outlets should also increase demand for gin motes.

The trash content of gin motes will probably prevent its use by the paper industry, unless research can find an economical means of eliminating such trash. Since the cotton fibers in gin motes are almost pure cellulose, motes may find new outlets among chemical industries.

Supply of Gin Motes

If new outlets are developed for gin motes, it is important that the quantity of motes available be sufficient to supply them. Profitable operation of these new outlets is dependent on an adequate supply of motes. The ginner must also know whether the expected supply justifies a mote-collecting system.

Gin Estimates

Among the more important factors determining the quantity of motes that can be expected from a ginning operation are the number of bales ginned, trash content of seed cotton, stages of lint cleaning used, and degree of mote cleaning. The bales of motes that can be expected from a ginning operation of a specified volume can be estimated from the amount of waste removed at each stage of lint cleaning. Lint cleaners remove an average of 13, 7, and 4 pounds of waste from 1, 2, and 3 stages of lint cleaning, respectively (see footnote 2). Thus, for each 1,000 bales of cotton ginned, the operator could expect to obtain about 26 bales of motes if one stage of lint cleaning were used; 40 bales of motes if two stages were used; and about 48 bales if three stages were used. On the basis of these figures, a plant ginning 5,000 bales and passing every bale through two stages of lint cleaning could expect about 200 bales of motes. If this same plant had three stages of lint cleaning, about 240 bales of motes could be expected.

From the standpoint of getting the most marketable gin motes, it may not be advisable to collect motes from every bale of cotton ginned, or from all stages of lint cleaning. Waste from seed cotton that contains extremely high percentages of trash or green leaf might best be blown directly to the burner or burr pile rather than incorporating it with cleaner motes. Such waste not only lowers the value of motes, but may present a fire hazard from heating in the bale. High percentages of green leaf also cause molding.

Because of problems created by very trashy seed cotton, valves should be installed that permit bypassing the mote house when a load of seed cotton has excessive trash or green leaf. Such a valve would also permit bypassing the mote house if there were an emergency or a breakdown in the mote-collecting system.

Area Estimates

Estimates on the potential supply of gin motes that would be available if all gins saved motes indicate that over one-half million 500-pound bales, or almost 285 million pounds, is possible from a 14-to 15-million-bale crop (table 4). At an average price of 4 cents per pound, or $20 per bale, this could add over $11 million to gross income of the ginning industry. Even if all gins were to eventually sell loose motes at one-half the price of baled motes, gross income would be $5 or $6 million.

Table 4.-- Estimated potential supply of gin motes by major producing areas 1/

Area of production	Cotton ginned 2/	Total motes collected 3/	
	1,000 bales	1,000 pounds	1,000 bales 4/
Southeast	1,988	39,760	80
Midsouth	4,714	94,280	189
Southwest	5,037	100,740	201
West	3,128	62,560	125
Total	14,867	297,340	595

1/ Estimate based on average of 20 pounds of motes collected per bale at 18 gins in study.
2/ 500-pound bales including bagging and ties, 1962-63 season.
3/ Amount of motes collected, expressed in pounds and the equivalent in bales.
4/ A bale weighs 500 pounds, including bagging and ties.

Since all gins are not currently saving motes, each area of the Cotton Belt has potential for supplying larger quantities. This is especially true in the Midsouth, where only a small percentage of gins are saving motes. Based on estimates from table 4, this area could supply over 180,000 bales of motes annually. Assuming an average value of 4 cents per pound, this would mean a potential increase of over $3-1/2 million in gin gross income in the Midsouth.

MARKETING GIN MOTES

Availability of supplies and markets for commodity or product determines the extent of specialization in its market organization. Since both supplies

and markets for gin motes are still somewhat limited, there are no highly organized markets at the present time. However, as supplies and markets expand, it may be expected that the marketing system for gin motes will become more highly developed, and firms may be established whose only operation is buying and selling gin motes.

Mote Buyers

Firms that buy and sell motes generally handle them as a sideline rather than as a full-time business. In one cotton market in the Midsouth, the largest mote buyers were firms whose main business was buying and selling cotton linters. These firms supply linters to manufacturers who convert them into batting. Since such manufacturers are the biggest consumers of gin motes, their suppliers would naturally become mote handlers.

Manufacturing firms that consume significant quantities of gin motes often buy direct from ginners. In some areas, buyer representatives for such firms compete actively in purchasing gin motes. These buyers sometimes provide outlets for low-quality motes that could not be profitably handled by merchandizing firms.

Mote-cleaning plants buy large quantities of motes in some areas. Such plants offer strong competition only within a limited radius of their establishment; they cannot haul economically a commodity with such a high bulk-value ratio any great distance. However, as methods of hauling loose motes are improved, mote-cleaning plants may be among the largest buyers and sellers of gin motes.

Pricing Gin Motes

Trading in gin motes has not yet advanced to the point where official grades or standards have been established. Such broad terms as "good," medium," and "low"; or A, B, C, and D are used by some buyers to describe motes, but these subjective terms are not always easily agreed upon by buyers and sellers. There is no well-defined system for describing mote quality. However, over a period of time, the trade may be expected to develop and adopt a more standardized system of grading that will be acceptable to both buyers and sellers.

Purchases and sales normally are made either on actual samples or private types. 6/ Generally, distant sales are made on the basis of private types, but local purchases are customarily made on the basis of actual samples cut from individual bales. Some mote-cleaning plants make purchases on a contract basis. Under such an arrangement, it is agreed that all motes from the contract gin

6/ Unofficial quality designation used by individual firms. Samples for each type are drawn from one or several bales which represent the quality characteristics the seller wishes to display. These types are shown as representative of a particular quality available for sale. The seller agrees to deliver bales equal to the type in question.

will be taken at a specified price if they fall within a certain quality range. The main factors determining this price are trash content, color, and staple length. Price is also affected by how easily the trash content may be removed. In some instances, trash is easily shaken out, but in other instances, it cannot be removed by ordinary cleaning processes. The mote-cleaning plant has the right to refuse motes that are not within reasonable tolerances from the standpoint of trash content.

For the gins studied, average price received for motes in bale form was 4.28 cents per pound. Prices on individual lots ranged from 3 to 7 cents. The higher prices were usually for early-season motes that were extra clean and white. In the San Joaquin Valley of California, virtually all gin motes were sold in loose form at an average of 1.71 cents per pound. There was little variation in price received for loose motes, ranging from only 1.5 cents per pound to 2.0 cents per pound.