

REPORT OF THE SECRETARY
OF THE
IOWA STATE
AGRICULTURAL SOCIETY,

FOR THE YEAR 1869.

J. M. SHAFFER, SECRETARY.

DES MOINES: ^U
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1870.

IOWA STATE AGRICULTURAL SOCIETY, }
SECRETARY'S OFFICE, FAIRFIELD, IOWA, January 25, 1870. }

HON. MADISON M. WALDEN, PRESIDENT OF THE SENATE, DES
MOINES, IOWA :

SIR:—I have the honor to transmit herewith the Annual Report of the Board of Directors of this Society for the year 1869, as required by Section 1703, Revision of 1860.

Your obedient servant, &c.,

J. M. SHAFFER, *Secretary.*

SECRETARY'S REPORT.

To the Honorable, the General Assembly of the State of Iowa :

The Iowa State Agricultural Society have the honor to present their Thirteenth Annual Report, being a review of the condition of agriculture throughout the State for the year 1869, as required by the provisions of section 1703, revision of 1860.

Appended to this general view, are the proceedings of the several meetings of the board; detailed financial statements; and announcement of awards at the annual exhibition; abstracts of the reports of the county and district agricultural societies of the State; certain essays on important topics connected with farming; and also suggestions and recommendations having reference to the agricultural development of Iowa. The volume of transactions of 1869, will occupy about five hundred pages; it will be entirely original, nothing being admitted from outside sources; nothing being reprinted from journals here or elsewhere; but all its pages are the production of our own people.

The past year has been, in the main, unfavorable to the agriculturist. In appropriate places will be found: 1st.—A meteorological condition disastrous to the cereals. 2d.—Large decrease in the number of sheep and the production of wool, from diseases and neglect. 3d.—Losses in swine from disease. 4th.—Indebtedness of farmers for implements made unavailable in the harvest, by reason of the excessive rains. 5th.—A greatly increased breadth of wheat, with a crop small in quantity and very inferior in quality. 6th.—A lamentable decline in the culture of artificial timber. 7th.—A decreased general average in the corn crop, with prices ruling higher than for several years. 8th.—Enormous crops of grass, but material injury in harvesting them. 9th.—The customary yield of apples, but of inferior grade. 10th.—Potatoes without parallel, but the loss of thousands of acres from a hard freezing in October.

The following may be set down on the opposite side of the account 1st.—Unmistakable evidences of improvement in cattle, horses and hogs, by the general introduction of breeds acknowledged to be of superior merit. 2d.—Small fruits and garden vegetables, so conducive to health and so “full of blessed conditions,” were never so abundant. 3d.—The insect enemies of the crops made no incursions of sufficient magnitude to affect any section of the State. 4th.—Evidences of a well-defined attempt to diversify agriculture, by an increase of many crops heretofore neglected, and the decrease of certain interests which had well nigh absorbed the attention of the farmer.

This brief test will be illustrated as far as may be in the limited space allowed in the succeeding pages. In order to condense the reports from the societies auxiliary to the State Society, a blank has been prepared for the cereals as reported, another for stock, another for the operations of the fairs, &c., which will place upon ten pages, what now is spread on two hundred pages of manuscript.

THE WEATHER IN 1869.

Frequent allusion will be made in the summing up of the products of the several cereals, to the meteorological conditions affecting the crops. The subjoined table will show at a glance what adverse influences, and what favorable conditions, made their mark upon the growths of the year. In order that a comparison may be made with readiness and facility, there is also added a similar table of the weather for the year 1868.

	Highest Temperature.	Lowest Temperature.	Average Temperature.	Rain fall in inches.
1868.				
January.....	48°	26°	10.2	0.75
February.....	63	37	20.7	0.85
March.....	84	8	40.	3.74
April.....	80	13	43.8	3.74
May.....	90	36	61.8	5.60
June.....	100	45	69.9	4.57
July.....	105	53	80.8	4.08
August.....	97	44	68.3	3.93
September.....	87	26	65.3	5.08
Total.....				32.35

	Highest Temperature.	Lowest Temperature.	Average Temperature.	Rain fall in inches.
1869.				
January.....	54°	34°	32.3	1.83
February.....	68	21	33.8	2.61
March.....	72	31	36.4	4.85
April.....	82	14	44.7	2.66
May.....	91	33	57.1	4.58
June.....	93	35	66.4	7.42
July.....	95	51	71.1	7.80
August.....	98	50	71.9	7.55
September.....	89	28	61.6	5.26
Total.....				40.56

The rain-fall of 1867 for the same period was 28.6 inches, or 2.86 inches per month. In 1868, it was 32.35 inches, or 3.23 inches per month. In 1869 it was 40.56 inches or over 4 inches per month. The greatly increased temperature of the summer of 1868 has justly given it the name of “the hot season”; the unprecedented rain-fall of June, July and August, 1869, making in the three months, the average of the entire State, over twenty-two inches, will mark it as “the rainy year.” What the damage from the seven inches of rain in April and May to the farmer, in planting and working the corn crop, can hardly be estimated; and the tremendous rains of the later months caused a partial failure of the wheat crop, which gave promise, just before harvest, of the largest yield ever gathered in Iowa. Besides the damages to railroads, country roads, bridges, farms, fences, &c., from floods and high waters, may be counted by millions of dollars.

In the months of March and April there was comparatively little rain, amounting to a little over three inches against eight and a half inches in 1868 for the same period; the soil was in admirable condition for early plowing and seeding, thus inviting the planting of an immense area in wheat and oats. A very early Spring was indicated by the occurrence of thunder showers on April 18th; the appearance of the blackbird and whip-po-will the 17th and 25th; the blossoming of apple and cherry trees at Fort Madison, May 4th, and at Dubuque, May 9th. On the 5th of May a slight frost occurred in the counties of Clayton, Black Hawk, Winnebago, and others at

the north; and it is mentioned as far south as Johnson county. The records of the three following months, are a repetition of the accounts of drenching rains, interfering with harvest, and injuring the crops of cereals and grasses. In September there were frosts from the 5th to the 27th in the different parts of the State. The first frost at Iowa City was September 26th. The mean frost date at that point, for thirty-one years, is September 24th. In Jones county the first frost was the 27th, and at Monticello, in 1865, there were 139 days between frosts; in 1866, 94 days; in 1867, 110 days; in 1868, 118 days; in 1869, 111 days.

What were the effects of these meteorological conditions will be considered as the several crops are commented upon in their appropriate place.

DISEASES AMONG FARM STOCK.

In very many counties, great losses have been sustained among swine, by what is termed "hog cholera." Evidences are not wanting that many and different affections, with entirely dissimilar symptoms, causes and results, have been classed under this general popular term. The nature of the disease, or diseases, is not yet defined with any thing like accuracy. There are conflicting views as to the cause, progress, treatment, and prevention of the distemper. Scattered through the publications of the society are many pages of experiences, and after all there is a failure to suggest a rational remedy. In Lee county, it was more fatal this year than usual. In Des Moines, Taylor, Page, Louisa, Buchanan and Dubuque, the loss reported is inconsiderable. In Appanoose, Jefferson, Lucas, and others, large numbers of hogs have died, and the loss has amounted to thousands of dollars. Let a few figures suffice to illustrate how important a matter it is to determine definitely the precise conditions upon which this disease depends. There were exported for the year ending April 30th, 1869, by the several railroads, a surplus of 412,357 hogs; also 13,417,726 lbs. of dressed hogs; 7,582,679 lbs. of lard and pork, aggregating a value of several millions of dollars. The census of 1868 returns 2,409,678 hogs of all ages worth six millions of dollars. Suppose the loss were but two per cent, or 48,192 hogs, which are worth \$100,000. Any one at all conversant

with the losses to individuals, will see that this is a small estimate. But even this loss should be provided against. The expenditure of five thousand dollars, in a commission to investigate the causes, establish a rational treatment, and furnish means of prevention, must receive the hearty commendation of every one.

Horses are, in the main, better cared for than any other farm stock. Cattle and sheep and hogs may shiver in the cold or scorch in the sun, but the horse must have shelter and shade, food and care, and every element necessary to preserve his health and develop his powers. Diseases, therefore, are less frequent among them. But four counties report epidemics that have proved disastrous. The diseases are called "Lung Fever," and "Blind Staggers;" and perhaps even here the causes and treatment are not so well understood as they might be, in spite of the learned disquisitions of veterinary surgeons, and others claiming to know all about the horse and his management.

Cattle have suffered from disease supposed to be induced by eating smutted corn. In Jasper and Harrison counties many died, and so in Story county a year ago. All the recorded experiences are of little practical value, not being sustained by careful dissections and comparisons of results in the several localities.

Sheep have sustained greater losses than any other farm stock, from diseases of various kinds. The scab and foot-rot have done incalculable damage. The number of sheep in 1868 was 2,370,106, or an increase of 661,148 over 1866; but the average wool clip of 1868 falls far short of that of 1866, being in the latter 3 1-9 pounds to the fleece; and of the former a fraction less than two pounds. The remedies for the maladies of sheep are mostly empirical. It is not necessary to enumerate experiences in this place; but it was not long ago announced that "foot-rot could not exist on the prairies of Iowa," that flocks infected with it were healed by a brief sojourn here. These propositions seem to be fallacious; for so great has been the destruction that sheep husbandry has been well nigh abandoned; thousands of sheep have been killed for their pelts and the small modicum of tallow which could be distilled from their carcasses, and for the third time in the history of the State can be heard the shibboleth, "Iowa is not suited to wool growing."

It is within the memory of every one of your honorable body, that the United States government has expended large sums of money to investigate the Texas cattle disease; that the New York State Agricultural Society called to its aid the highest order of talent to study the cause of, and furnish a remedy for, abortion in cows; that a mass of facts and figures was collected from all parts of the country, and that from these have been deduced certain generalizations of inestimable value to the public; that the Connecticut State Agricultural Society has memorialized Congress, asking for a commission to examine into the nature, causes, cure and prevention of the Pleuropneumonia of cattle in that region, that in all these cases, every facility in money, time, talent, and opportunity, has been afforded to make researches that would result in practical conclusions. All these, and many similar instances, are a precedent justifying and urging the institution of requisite means to study the diseases affecting farm stock and causing the loss of millions of dollars annually to the people. Let your honorable body furnish the means, and appoint a scientific commission, who shall investigate the causes of these diseases, and make public what remedies may be suggested by scientific observation, careful analysis, and well defined generalization.

CATTLE.

Marked improvement has been made by the introduction into numerous localities of approved breeds. Much of the premium stock from abroad, which was on exhibition at the last State fair, was purchased by Iowa farmers, and will prove a valuable acquisition. The indications are that more attention will be paid to raising cattle and as a necessary consequence, the cultivation of tame grasses, and the lessening of the area of wheat.

The subjoined table shows the number exported for the years named:

RAILROADS.	1864	1865	1866	1867	1868	1869
Burlington & Missouri River.....	35220	31630	31308	24518	24849	28711
Chicago, Rock Island & Pacific.....	22470	21591	21500	20021	22515	25267
D. & S. C. Ills. Central.....	8250	7680	4706	2540	4523	8206
Chicago & Northwestern.....	19265	19698	14375	28996	13851	.....
Cedar Falls & Minnesota.....	.....	2400	990	.....	.....	.....
Chicago, Burlington & Quincy.....	.....	.....	.....	3392	1910	2026
Milwaukee & St. Paul.....	.....	.....	.....	.....	28	1839
Des Moines Valley.....	.....	.....	.....	.....	.....	10241
Total.....	65940	82566	78202	64846	82821	90141

Receipts in Chicago, 1867, 326,826; in 1868, 323,850; in 1869, 399,913. Prices, 1867, from \$2.50 to \$7.00; in 1868, from \$3.00 to \$7.50; in 1869, from \$3.50 to \$7.62½.

HOGS.

Diseases have caused heavy losses in hogs. Yet there is no kind of farm stock which has received so large a share of attention during the year. In every county there are reported numbers of farmers who have made it a specialty, and who have paid large prices for fancy breeds. And among the general agriculturists, there must be very few who have not secured Berkshire, Magee, Chester White or other varieties that have achieved a name and reputation for points of excellence.

It is only necessary here to compile a few figures to illustrate the importance of this product; and first, the following shows the state of the case in Chicago, for 1868 and 1869, being the receipts at that place:

	Live Hogs	No. Dressed Hogs	Pork (barrels)	Lard (pounds)
1868.	1,688,189	270,860	47,510	10,053,521
1869.	1,667,085	205,416	42,556	6,732,892
Decrease.	21,104	65,444	4,954	3,320,629

Or a falling off of nearly two millions of dollars in this branch of trade, the prices ruling much the same as in the previous year.

The following shows the exports for several years, by the railroads in Iowa, of live hogs, lard, dressed pork, &c.

LIVE HOGS	1864	1865	1866	1867	1868	1869
B. & M. R. R.	148,246	45,442	90,510	115,400	144,386	182,943
C. R. I. & P. R. R.	84,600	44,220	54,181	131,802	131,944	125,965
Ills. Cent. R. R.	26,715	18,480	12,950	7,300	17,370	42,437
C. & N. W. Railway .....	.....	41,340	56,075	64,470	126,385	61,258
C. B. & Q. R. R. ....	.....	.....	.....	15,393	6,957	12,324
Mil. & St. Paul R. R. ....	.....	.....	.....	.....	4,742	10,613
D. V. R. R. ....	.....	.....	.....	.....	.....	145,367
Total	250,561	149,482	213,716	334,265	431,794	580,907

Pounds of dressed hogs, lard and pork carried eastward by the several roads named: In 1865, 10,882,631; in 1866, 17,273,884; in 1867, 21,164,888.

In 1868 and 1869, as follows, in pounds:

RAILROADS.	1868.			1869.		
	Dres'd Hogs	Pork	Lard	Dressed Hogs	Pork	Lard
B. & M. R.	229,960	3,049,164	659,780	151,367	1,239,657	301,538
C. & N. W.	17,334,407	.....	.....	3,370,980	876,710	.....
C. R. I. & P.	2,554,440	339,200	1,843,570	2,843,870	.....	2,472,940
C. B. & Q. ....	.....	304,371	638,599	207,145	491,852	350,633
Ills. Cent. ....	.....	4,317,100	.....	.....	5,508,500	.....
Mil. & St. P.	932,380	.....	3,880	1,193,840	.....	16,790
D. V. ....	.....	.....	.....	.....	1,261,734	476,161
Total	21,051,187	8,009,895	2,645,829	7,767,202	9,378,453	3,618,049

SHEEP.

Allusion has been made, in another place, to the diseases affecting sheep; and to the effect of these distempers in decimating the flocks, dispiriting the owners, and discouraging the increase and care of the fold. We have reports from sixty-one counties; twenty-one county agricultural organizations make no mention of sheep at all; only two speak any words of cheer, and thirty-eight report sheep husbandry as "decreasing," as "abandoned," as "unprofitable," as "receiving little attention," &c. It is a mournful fact that many thousands have been slaughtered for their pelts; it is impossible to estimate the number, but Jackson county reports 4000, Henry and Jefferson and others indefinite quantities; and Marshall, Dubuque, Madison, Scott, Mahaska, &c., have a clear decrease of

fifty per cent. Several counties send up the customary wail concerning the ravages of dogs; and there appeared the usual number of accounts in the local press, of canine incursions upon the folds. Once more we come to figures. In 1866, the value of sheep killed by dogs was \$82,612. For some reason there are no official figures of the losses in this direction in 1868; but in 1866 there were 125,207 dogs; by the wisdom of the Census Board, we have the number in 1868 at 147,623, an increase of 22,416, or one dog to each 7.52 inhabitants in 1866, and one to each 7.20 in 1868; or the dogs have increased more rapidly than the population. Now if 125,207 dogs in 1866, killed \$82,612 worth of sheep, how many dollars worth would 147,623 dogs kill in 1868, other things being equal? In round numbers \$125,000 worth. But in 1869, sheep were, if possible, more neglected; owners considered them more unprofitable; fancy prices both for wool and sheep had failed; the flocks were not protected, and of course the dogs would have a better opportunity to do their work. Allowing for the decrease in number and value from the depression of the wool market, from diseases, &c., it is not an exaggeration to state that the dogs killed in 1869, \$150,000 worth of sheep.

There is a decrease of nearly one million pounds between the wool clip of 1868 and 1866. In the former year it reached 4,478,934 lbs, and the decrease in 1869 is certainly greater, so that the whole product will not exceed three million pounds.

The following tables are added to show movements of sheep, and wool by rail for the years named:

	Exports.	Imports.
1869.	6,289	70,118
1864.	16,585	159,519
1865.	20,755	33,116
1866.	32,339	4,972
1867.	30,461	4,368
1868.	48,464	3,688
1869. ....	.....	.....
Total	175,143	276,781

These figures are reached through the following sources :

	1866		1867		1868		1869	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imp's
B. & M.	29921	180	19154	.....	23600	400	24180	196
C. & N. W. ..	9593	5310	5104	1851	9514	2353	6873	615
C. R. I. & P.	11320	47	5089	2182	13529	480	16466	560
C. B. & Q. ...	1775	435	1144	335	1234	455	1097	.....
Ill. Cent. ....	.....	.....	.....	.....	537	.....	865	.....
Mil. & St. P.	.....	.....	.....	.....	50	.....	160	.....
D. V. ....	.....	.....	.....	.....	.....	.....	8184	.....
Total.....	52609	5972	30491	4368	48464	3688	57825	1371

The following shows export of wool in pounds :

	1867	1868	1869
C. R. I. & P.	731430	666310	551390
Ill. Cent.	269308	.....	293500
C. B. & Q. R.	148171	214189	60418
B. & M. R.	910238	1181240	864695
D. V. R. ....	.....	.....	668803
C. & N. W. ....	.....	.....	454340
Mt. & St. Paul. ....	.....	.....	63380
Total.....	2059147	2061739	2956526

Receipts at Chicago, 1867, 9,523,707 lbs; in 1868, 11,962,525 lbs; in 1869, 8,737,280 lbs., or a decrease of 3,225,245 lbs.

HORSES.

So marked has been the improvement in horses that they deserve a special paragraph. There were returned in 1869, 482,786 horses of all ages, being an increase in two years of 57,731. The several railroads carried eastward, for the year ending April 30th, 1869, 1,628, being a greater number, with two exceptions, than ever before. Some of our people are devoting their best energies in rearing blooded horses. Most of the counties boast of the possession of good breeds, and those who do not have them, regard it as a calamity. The Bashaw stock of horses from Muscatine county has achieved a national reputation. The introduction of several Norman stallions is a good token. Correspondents make complaint of the present classification into "thoroughbreds," "horses of all work," "roadsters," and "draft," as too indefinite, and perhaps it would be advisable to modify it, and make it of greater practical value. Perhaps, too, if

there was a stronger infusion of good blood, there would not be the almost universally shallow plowing that not only does not insure a good crop, but exhausts the land and fosters the growth of noxious weeds. It affords us, therefore, great pleasure to report a great improvement in horses in many localities, and a desire for it in many more.

The following indicates movements of horses eastward for the years and through the sources named :

RAILROADS.	1863	1864	1865	1866	1867	1868	1869
Burlington & Missouri River.....	1395	169	107	139	203	112	136
Chicago, Rock Island & Pacific.....	1946	565	988	233	167	183	253
Dubuque & Sioux City (Ill. Cent.).....	112	.....	.....	.....	.....	.....	335
Chicago & Northwestern.....	.....	.....	1100	402	471	675	704
Milwaukee & St. Paul.....	.....	.....	.....	.....	.....	.....	70
Des Moines Valley.....	.....	.....	.....	.....	.....	.....	99
Total.....	3453	734	2195	774	841	970	1597

WHEAT.

All the counties report great damage to this crop from the excessive rains during the harvest. Early in the season it promised an unprecedented yield. Stimulated by the high prices of a few years ago, many thousands of acres of new land were put down in wheat; and everywhere extensive preparations were made for the largest crop ever gathered in Iowa. In anticipation of a large yield and fair prices, many contracted debts for improved reaping machines, but when the time came, the fields were so deluged that the reapers could not be taken upon them—the crop was harvested with the old-fashioned cradle, and hope was not yet abandoned. But very many lost heavily even after this unwonted and unexpected cost of harvesting by hand, from the grain sprouting and rotting in the shock.

The exports are as follows for the several years: In 1865, 3,331,769 bushels; in 1866, 4,740,440 bushels; in 1867, 6,539,628 bushels; in 1868, 8,836,243; in 1869, 9,776,753 bushels, as follows :

RAILROADS.	Bushels 1868	Bushl's 1869.
Burlington and Missouri River.....	302,818	147,547
Chicago and North-western.....	3,712,725	2,769,102
Chicago, Rock Island and Pacific.....	1,742,127	1,594,616
Illinois Central.....	1,955,290	3,310,060
Chicago, Burlington and Quincy.....	73,511	
Milwaukee and St. Paul.....	1,046,694	1,465,302
Des Moines Valley to T. and W.....	3,078	490,126
Totals.....	8,836,243	9,776,753

The receipts at Chicago are 16,669,156 bushels, or an increase of 3,128,906 bushels over 1868. But the prices varied exceedingly. In 1868, January 1st, No. 1 Spring wheat was worth \$1.93 to \$1.96; same date 1869, \$1.17 to \$1.20; same date 1870, 79 cents. Gold one year ago, \$1.34; now \$1.20.

SORGHUM.

The consumption of sugar in the United States in 1868, was 467,268 tons, or 1,046,680,320 pounds. During the same period there were consumed 55,957,969 gallons of cane molasses; to this add about 50,000,000 gallons of syrups from maple, sorghum, &c. and the aggregate is over 100,000,000 gallons. If there are 40,000,000 inhabitants, it will make the average consumption two and a half gallons of syrup, and twenty-six pounds of sugar, per capita, yearly. It requires, therefore, to supply this one essential want of the people of Iowa, 2,602,047 gallons of syrup, and 27,061,294 pounds of sugar.

The product of sorghum syrup in 1868, was 2,592,393 gallons, or nearly enough to supply the demand according to the above estimates. But what shall be said of the vast amount of sugar? Its cost, at the lowest figures, is \$4,059,194.

There are some who affect to despise the culture of sorghum as a standard crop; they declare the best syrup unfit for use, and indulge in broad grins whenever anything favorable is said relating to the production of sugar from it. The gratifying success thus far attained, should open the way for serious reflection, and what remains to be done deserves the most careful thought of our people. For, as

much as has been done, it is a mere bagatelle to what may be accomplished, with proper light on the subject. Iowa should make its own syrups and sugars, and farther than that, it should afford large quantities for export. And this can be done, and will be done, so soon as the sorghum crop receives the same attention as corn and wheat. The crop must be considered a regular part and parcel of every farmer's work; and there must be a perfect state of preparedness to work up the crop at the proper time. The neglect of these conditions is the prime cause of many failures and disappointments. Barns are built to preserve hay, grain, &c.; so houses must be constructed to protect the men and women at work—to save the cut cane from rains and sun and frost—to keep the machinery in good condition—and to render the hard labor of making syrup as pleasant and comfortable as possible. Wood is (or ought to be) cut and dry for the kitchen and parlor, long before it is used, as a matter of comfort and economy; so must dry, good fuel be ready for the furnace and evaporator. Wells are dug for stock and the house; so must a bountiful supply of pure, clean, fresh water be supplied for the sugar-house. And when the time arrives to do the work, the acre of sorghum worth \$200, must not be left to perish to dig a bushel of potatoes worth 15 cents—to re-set a fence which could be better done at another time—in short, the work of a farm must be so disposed, that nothing shall interfere with the saving of the sorghum crop. Let these things be done, and the profits to the State can be counted by millions of dollars in this one item.

Let a few figures be added to illustrate the present importance, and past value of sorghum-culture:

PRODUCT OF SORGHUM SUGAR.

1862.....	21,469 lbs.
1864.....	8,386 "
1866.....	14,697 "

This table shows the several years, the number of acres, the yield of syrup, average per acre, and value of the crop per acre :

Year.	Acres.	Gallons of Syrup.	Av. per Acre.	Value per Acre.
1858	5,906	410,776	74 galls.	\$37 00
1862	37,607	3,442,396	92 "	46 00
1864	21,452	1,543,605	67 "	41 00
1866	25,796	2,094,557	81 "	57 00
1868	26,243	2,592,393	99 "	74 00

The following comparative table has been compiled from the State Census of 1869. The eight counties are selected as being a fair representation of the several localities in the State :

COUNTIES.	Wheat		Corn		Sorghum		Syrup		
	Yield of Bushels.	Value per acre.	Yield of Bushels.	Value per acre.	Yield of Sorghum.	Value per acre.	Yield of Gallons.	Value per acre.	
Appanoose . . .	177,940	14.25	13,438	1,312,754	31.40	\$25 12	67,686	96.60	72 52
Black Hawk . . .	1,188,107	18.78	17 83	848,801	34.61	27 68	30,126	86.32	64 74
Cedar	794,932	14.92	14 37	2,304,394	43.45	34 76	28,337	97.37	73 03
Des Moines . . .	289,522	11.16	10 60	1,888,149	31.84	25 47	46,083	116.07	87 05
Franklin	53,509	10.41	9 88	1,030,917	35.55	28 44	14,485	94.67	71 00
Humboldt	21,229	12.27	11 65	78,354	30.76	24 60	8,806	74.32	55 96
Marion	608,474	18.45	17 52	1,041,961	40.45	32 35	113,490	127.90	95 93
Pottawattamie .	35,967	6.03	5 72	345,086	23.75	19 00	12,065	90.71	68 03

Or, in the aggregate it appears that the yield of wheat being a little more than 13½ bushels per acre, that of corn a little less than thirty-four bushels per acre, and that of sorghum syrup 98 gallons per acre; the wheat crop is worth, at \$1.93 per bushel, Chicago price, January 1st, 1869, \$26.23 per acre; the corn crop, with Chicago price, same year, 66 cents per bushel, \$22.42 per acre; and the sorghum crop at 75 cents per gallon, ordinary State price, is worth \$73.50 per acre. Farther comments might be made from the actual figures as above; and we only add that a careful analysis, showing the averages in the States of Ohio, Indiana, Illinois, and Iowa, are as follows: Wheat, per acre, \$20.07; corn, per acre \$15.82; oats, per acre \$12.21; and sorghum per acre \$71.94.

* The value of wheat and corn are taken from Chicago market reports of December; and wheat placed at highest figures, 90 cents—corn at 80 cents. Sorghum at 75 cents per gallon—common retail price in the State.

ARTIFICIAL GROWTH OF TIMBER.

The last General Assembly passed an act encouraging the growth of timber, fruit and shade trees, &c. The society has endeavored, by circulars addressed to the several counties, to learn what the effect of this legislation has been. The replies are so indefinite and meagre, that it is impossible to submit to your honorable body even an approximate estimate. The census returns, under the heading "No. of acres planted in timber," in 1868, 19,675 acres, making the entire average of artificial timber in the State, 68,449. The increase between 1864 and 1866 was 28,489 acres, and we have, with the aid of legislation, with the increase of population, and of the number of acres placed under cultivation, 8,814 less of artificial groves between 1868 and 1866, than between 1866 and 1864.

In 1866 the proportions of artificial timber to land enclosed was 1 in 170, being a lamentable decrease compared with the preceding two years. At this time there are "lands enclosed" 8,174,920 acres; and "lands under cultivation" 6,109,743 acres, or a total of 14,284,673 acres; the proportion will then be 1 to 208, indicating that the area of artificial timber does not nearly keep pace with the acres placed under cultivation.

Consider the following hurried summary of facts: 1st.—That for a century and a half a large population has been cutting out, destroying and wasting the best timbered region on the continent, that lying between the Atlantic ocean and the Mississippi river, in preparing and subjugating the soil to cultivation. 2d.—That only the mountain lands have been permitted to reproduce the forests. 3d.—That no systematic effort has been made to supply the waste. 4th.—That so great have been the avarice and thoughtlessness of the people, that they have destroyed the forests, containing in themselves the elements of unbounded wealth, for the infinitely small profits of immediate returns, in wheat, corn and other crops. 5th.—That the consumption of timber for building, fencing, implements, railroads, fuel, &c., is increasing with gigantic strides, and the reproduction is going on at a snail's pace. 6th.—That the States of Maine, Michigan, Wisconsin, Minnesota and Florida are alone among the States exporting any appreciable

amount of timber more than they need. 7th.—That west of these vast belts of timber that were, stretch out an untimbered surface of 1,400,000 square miles. 8th. That the destitute surface exceeds by more than 400,000 square miles the whole of the once heavily timbered regions east of the Mississippi. 9th. That the new States soon to be admitted—New Mexico, Colorado, Wyoming, Montana, Idaho, and Dakota, have but a small supply, not nearly sufficient to meet the demands of a population equal to Ohio, Indiana or Illinois.

Then consider if it is not high time that reproduction should begin, and be unremittingly pushed forward, until *everywhere*, this broad land shall become a paradise of plenty, comfort, independence and healthfulness—not for this generation only, but for a vast population in the future, who shall find their homes on these plains.

There is no one subject which demands more serious thought, from the legislator, the agriculturist, and the friend of his race: this being once awakened will result in serious, energetic action. No more forests will be ruthlessly destroyed, no more fires or fiends of any kind will injure our growing trees. There will be no longer delay in opening up new farms; for so soon as the primitive cabin is built, and the most pressing immediate wants of the family shall have been met, then the ten acres of timber will be planted, cultivated, and cared for as the most profitable spot on the farm.

All agricultural societies must give "line upon line, precept upon precept, here a little and there a little," until every one shall be thoroughly aroused to the importance of the subject. And those who make laws should hasten to throw their ample protection about him who plants a grove. They should stimulate him by a direct and specific bounty in cash. They should see that he shall be at no expense to fence in his acres of timber from the attacks of predatory bands of stock. His grove should be, so soon as planted, so far sacred that his single furrow around it is a lawful fence! Let the world understand that it is not *his* care to fence out his neighbors stock, but that it is *their* care to fence in their own cattle.

Take any of the counties or sections in Iowa, sparsely settled, and what shadow of justice is there in compelling the hardy and industrious, but oftimes poor pioneer, to spend hundreds of dollars in protecting his young and growing groves, from the incursions of stock, when the expense to all, of confining the stock would be infinitely less, and when such righteous restrictions would redound to the benefit of all? The pioneer, with your protection as indicated, would be encouraged to do that for the country, which can be done by no other means. Help him plant trees, beg him to do it, pay him in cash for doing it, keep away all injurious influences while he *is* doing it; and when a just distribution of trees is had,—and this is the work of less than half a century on our treeless plains—what benefits have been added, and what return is made? It is answered:

Aside from the intrinsic value of the wood for fuel, building, fencing, and a thousand other economic uses, there are added, the fertilization of the soil, the softening of the climate, the protection of all living things from the sweeping winds and unbroken rays of the sun; in a word, the supplying of the one indispensable element to render habitable waste places, and to afford every comfort and luxury to the people. Up to a certain point, iron may be substituted for wood, but there it ceases; up to certain limits, coal may be used in its stead, but there it also ceases, and there is nothing that can supply the place of wood. It is absolutely indispensable to man, wherever found and however occupied. Every encouragement, therefore, which can possibly be granted, should be given to the man who plants a tree and takes care of it.

THE PREVENTION OF CRUELTY TO ANIMALS.

Last year the Society called the attention of the Governor and of the people to the law of Illinois, passed in 1859, to prevent the reckless killing and destruction of insectivorous birds. The vast importance of the subject will be sufficient apology for this second allusion to it.

The great body of the people rejoice in the humane and wise provisions of the laws of 1868, protecting the wild game from indiscriminate slaughter; they are ready for the enforcement of a

stringent enactment absolutely prohibiting the wanton killing of our small birds. Illinois farmers and horticulturists believe in the wisdom of this law, they observe it, and will not suffer it to be violated by others with impunity. Pennsylvania has only waked up to the gigantic wrongs mercilessly heaped upon the little birds; and within a year has enacted that "No person shall at any time kill, trap or expose for sale, or have in his or her possession, after the same is killed, any night-hawk, whipp-wil, finch, thrush, lark, sparrow, wren, martin, swallow, woodpecker, dove, bobolink, robin or starling, or any other insectivorous bird, nor destroy or rob the nests of any wild birds whatever, under a penalty of five dollars for each and every bird so killed, trapped or exposed for sale, and for each nest destroyed or robbed." The usefulness of small birds as destroyers of insects is thoroughly recognized by the Saxon government also; and only a short time ago, a body of police made their appearance in the market place at Dresden, without previous warning, seized all the cages containing singing birds exposed for sale, and released their inmates. A decree has also been issued forbidding, under the severest penalties, the destruction of these useful songsters or of their nests. In France the government uses its best efforts to prevent the killing of small birds; but they have in France rook-shooting parties, one of which bodies of estimable gentlemen killed in one day five thousand of these birds, "though the trees were swarming with caterpillars." The French government must take a step in advance, and hang upon the trees all or several of the members of a dozen or two rook-shooting parties, until they are dead as Julius Cæsar, and then the rooks will take like care of the caterpillars.

Injurious insects are the principal food of most of these birds. "From the 15th of April to the 29th of August eighteen martins were once killed, in the stomachs of which were discovered 8,690 insects destructive to the produce of the farm," and there are in the library of this Society the contents of the stomachs of the night-hawk, woodpecker, chipping-sparrow and other birds, with the date of their capture, showing a vast multitude of insects injurious to vegetation. It is asserted as a fact, and no reflecting mind will doubt it, "that insects destroy more than is harvested." To destroy

therefore, the little birds, which are the hourly guardians of the farmer and horticulturist, which keep watch over his orchard and his forest, which stay the predatory march of millions of minute but ravaging foes, is to the last extent mischievous, not to say suicidal. These useful warblers should be protected from wanton destruction by the strongest barriers of law; and it is recommended that an enactment be made in accordance with the ideas thus briefly stated.

Yet there is an additional phase of this subject to which your most earnest and careful attention is invited. To catalogue the horrible brutalities that are daily practiced upon the conscious and yet helpless dumb brutes that supply food, clothing, comfort and luxury and that form the chief elements of the wealth and commerce of the people, would be a recital at which the blood of the most unfeeling and unsympathizing would run cold. Amid the ponderous volumes of law that have been enacted in Iowa defining all conceivable relations of all conceivable parties, among the thousands of pages that include the laws for our government as a people—but a few lines are found protecting the poor beasts of burden—the poor defenceless animals that afford us so much of the material necessary to our existence.

All that Iowa Legislatures have done to protect from cruelty, the domestic animals from the unmitigated brutality and bestiality of butchers, hucksters, drivers, teamsters and others especially handling them as a source of immediate profit, may be found in sections 4318 and 4358 of the Revision of 1860. They read thus: "If any person maliciously kill, maim or disfigure any horse, cattle, or domestic beast of another; or maliciously administer poison, &c.," he shall be punished by fine or imprisonment and; "if any person cruelly beat or torture any horse or ox or other beast belonging to himself or another, he shall be punished by fine or imprisonment." And this is all the law on the statute book to protect 482,786 horses, 28,420 mules, 147,623 dogs, 26,726 work oxen, 2,108,667 cattle, and 2,370,106 sheep, 2,409,679 hogs etc., etc. Think for a moment of this vast enumeration of *life and conscious feeling*; how much these animals contribute to the necessities, the comforts, nay! the very luxuries of existence; and then think of them solely

dependent upon the will and caprice of too often heartless owners, without any adequate law to protect them from the savagery of brutal men!

What the enlightened spirit of the time—what every consideration effecting the moral well-being of society—what the cry of the dumb animals whose cruelties by thoughtless and inhuman persons are unavenged—demand is the strong arm of the law, protecting every living creature from needless pain, and punishing every offender with rigor. This might best be done by the incorporation of a society who, through its lawful agents, widely dispersed, should see that all its provisions were faithfully and promptly executed. In the absence of such a society the law should declare it a misdemeanor to overdrive, overload, torture, deprive of necessary sustenance, unnecessarily beat, or maliciously mutilate or kill any living creature. When animals are impounded, they should be provided with a sufficiency of good and wholesome water and food. To carry animals to market in a cruel or inhuman manner should be forbidden. In the transportation of cattle, horses, sheep, swine, etc., by rail, they should not be kept on the cars longer than a certain number of hours; but shippers and railroad companies should be compelled, under the severest penalties, to unload them, after the expiration a fixed time, and give them rest, water, food, and bedding. All cattle cars should be provided with troughs which must be filled with water every eight hours. All animals should be slaughtered away from public view, and the killing should be done with reference to the wisest dictates of mercy—of mercy to the brute—and of mercy to those who consume its food. And the law should be so worded that there should be no escape by a set of merciless scoundrels—who—for instance, drive a horse to a load, with a reeking and bleeding sore under his collar or some other part of the harness;—who, for instance again, bind up the legs of calves and sheep and pile the poor brutes in wagons, as so many stones, to carry them to the shambles; who, again, tie bunches of poultry together by the legs, with no more regard for the suffering fowls than if they were so many carrots; who, again, indulge in dog-fighting and the charms of the cock-pit; who, again, immerse living fish in boiling water to clean them; who, instance the last, are of those extremely refined sportsmen

who train that noble servant—the horse—“under the influence of the wild screech and the merciless lash, to snap asunder his throbbing sinews, in order to indulge a barren, senseless instinct of speed.”

Space will allow no argument to illustrate the necessity of such legislation as is here recommended. But it may be added: the oldest and best of books says, “the merciful man is merciful to his beast.” If there are inhuman monsters that willfully inflict suffering, pain and anguish upon the poor beasts which he owns or controls, it is the duty of the wise, humane and benevolent legislator to step between the human and the mere animal brute, and protect the weaker party. Remember—

“A man of kindness to his beast is kind,
But brutal actions show a brutal mind.
Remember! He who made thee, made the brute,
Who gave thee speech and reason, formed him mute;
He can't complain—but God's all-seeing eye
Beholds thy cruelty—He hears his cry.
He was designed thy servant,—not thy drudge,
And know that his creator is thy judge.” *

RAILROADS.

It is estimated that over six hundred miles of railroad were constructed in 1869, making the aggregate miles completed over two thousand. But why speak of this in connection with a view of the condition of agriculture? For various reasons. A year of agricultural prosperity has its effects upon the comparative success of the roads. Travel and freights bear a direct proportion to the success of the agriculturist. Such rapid increase in the number of miles of road, would indicate that capital is satisfied with the investment; and this feeling of security comes solely from the fact that the soil failed not to make its customary increase. Again, the railroads have done more to develop the latent resources of the

* For many of the sentiments and expressions in this paragraph, I am indebted to Henry Bergh, President of the American Society for the Prevention of cruelty to animals, and to the several reports of the society.

SHAFFER, Secretary.

State than all other instrumentalities combined. It is quite impossible to disassociate our gigantic growth in productive industry, wealth and greatness, achieved in the past twelve years, from the railroads which have accomplished it. Correspondents, with pens ever so facile and words ever so alluring, would have written in vain, inviting the immigrant to our exhaustless soil, the advantages of climate, the healthfulness, the facilities for grain and grass-growing, and the rearing of farm stock, to the coal, and lead, forests and lakes and rivers, and to the other elements which are possessed in such lavish profusion. Of what avail are all these without easy transportation and convenience of market? Again, they have received princely gifts of land from the General Government, individuals and corporations have assisted them by money and by grants of special privilege, and every county through which a road passes, receiving its share of the tax imposed, gives a personal interest to every tax-payer, and there is no question at the present time that is exciting so wide-spread discussion. Those so unfortunate as to be beyond the civilization brought by a railroad, are clamorous for their construction and are doing all in their power to secure its benefits. Many of those who have a single road are bending their energies in every direction for a second or a third; and there are others who have so long cried out "Monopoly," that they regard railroads as the greatest possible curse to the country. Again, the farmers are principally interested because their produce and what they consume in return, as merchandise, implements, iron, salt, lumber, &c., gives employment to the men, vitality to the capital invested, and pays all the dividends declared.

TRANSPORTATION.

Immediately connected with this subject, is that of transportation in general. Great Britain purchases every year 120,000,000 bushels of cereals. This vast amount must come almost entirely from the United States and Russia; and Mr. Ruggles, delegate to the International Statistical Congress, from whom these figures are derived, adds: "The advancing civilization of the age demands increased facilities on the land, with freedom from monopolies and

every other unnecessary burden on internal transportation." Iowa with a surplus of over 10,000,000 bushels of wheat, over 2,500,000 bushels of corn, and over 4,000,000 bushels of other cereals, has a decidedly important interest in these figures. There is already a giant struggle for the grain trade of the northwest. It now costs more to ship a ton of wheat from Iowa to New York, than from San Francisco. A proposition has been made to form an association at St. Louis with sufficient capital to construct elevators at suitable points on the Mississippi, to carry grain by barges to New Orleans and thence to Liverpool. The contest is not between two rival cities; but as a writer expresses it, "It is Western enterprise against natural disadvantages of location to forward breadstuffs to Europe cheaper than they can be forwarded from any other grain-growing region in the world." What Iowa wants is a choice of market for her surplus produce; and every effort to reach so desirable a consummation should be met with the most liberal encouragement. If grain can be transported to Liverpool more cheaply by the Mississippi than by the lakes, any enterprise which promises to demonstrate it should be fostered. Cheapen the transportation by increasing the facilities, and the monopolists will find their occupation gone; and moreover, the accomplishment of a new route to New York and Liverpool will break up the speculators and gamblers who stand between the producer and consumer, and cause fluctuations in the market which are the shame of American merchants.

THE LIBRARY.

There have been added to the Library during the year, a large number of volumes, among them the Transactions of other Societies, as New York, Ohio, Maine, Rhode Island, Illinois, Wisconsin, Michigan, Georgia, New England, &c. There have been contributed also, a large number of photographs and lithographs of celebrated Durhams, Jerseys, Chester Whites, Merinos, and several famous horses, representing nearly all the best breeds of stock in the United States. The Society has exchanges with the principal agricultural newspapers in the country; these latter are filed with great care, the series

completed, and bound in a substantial manner. In addition, the collection of cereals, textile fabrics, and agricultural products of Iowa and other States, has been largely augmented.

The accumulations of the past are packed away, some in a room in the State capitol, some at the Secretary's office, and some at the Agricultural College—in such “questionable shape” that they are not convenient for reference, serve no immediate valuable purpose, and are subject to the depredations of many malign agencies, including “mice and men.” The present system of exchanges and collections—which could very readily be largely extended—demands the exclusive use and control of commodious rooms for their preservation. It is the design to keep on hand a certain number of the annual volumes of Transactions, to facilitate exchanges in the future. New counties may be organized; in these may be formed public libraries; new States are being rapidly added to the constellation of the Union; new distinctive agricultural associations are springing up everywhere; these would be vastly benefited by a set of the volumes of Transactions of this Society. New State associations are forming among our Southern brethren, and old societies are being powerfully revived; all these and many more will need the accumulated experience of Iowa agriculturists, as faintly recorded in our published works. This Society demands a safe repository to so preserve its property that this very natural want may be supplied.

The demand for the annual volume, by societies and individuals, is far in excess of the three thousand copies furnished by the State; and the greatest possible care is taken that they fall into the hands of those only who would appreciate them, and through their merit, assist in the rapid development of Iowa. Yet with the exercise of the most scrupulous care, it is found impossible, in many cases, to send a volume where there is good reason to believe it would induce a family or a neighborhood to leave sterile fields or ungenial climates, and make a home in our midst.

The great need of this Society, so far as its Library is concerned, is the absolute control of suitable rooms for its books, papers, archives, collections of grains, &c. At present, the labor of many years promises to be destroyed. This Society has not been idle; its records show an accumulation of great practical and scientific value;

books, papers, letters, vouchers, grains, fabrics, &c., &c. Shall all these be lost to the present and the future? During the legislative session, the Society's room in the Capitol, is appropriated by committees, and all sorts of irresponsible persons gaining access, there is no security against the handling and loss of articles of value. In the interval, the room is the receptacle of broken chairs, dislocated parts of lamps, piles of manuscript belonging to other departments, a camp-chest with cooking utensils, provisions, &c., to supply nutriment to persons working about the grounds and buildings, and a mass of other utterly incongruous and abominable stuff. This Society contends that its Library and appurtenances demand the protection of the Legislature; and it is respectfully recommended that the S. E. basement room, if no better can be had—in the lower story of the capitol building, be placed under its exclusive control and management.

We also ask a special appropriation of \$1,000 for the purpose of fitting and furnishing the same in an appropriate manner; for binding newspapers, pamphlets, &c., that have been accumulating for years, and that are worthy of preservation; for so preparing it that it would serve the present purposes of the Society, and at the same time furnish tangible proof to the people, that the great interest of agriculture is in some degree cared for, in a State—soon to become a great nation—whose chief dependence is upon the products of the soil.

COUNTY SOCIETIES.

During the year, seven new county societies have been organized, and six heretofore placed on the list, failed to report. We have a report on the condition of agriculture from sixty-five organizations. Too many of these official reports are made without any just appreciation of their value and importance. Occasionally an officer, who has pride in his work, sends a document alike honorable to himself, and to the county in which he resides; but the majority are evidently prepared with great haste, and with reference rather to secure the appropriation from the State, than to give a synopsis of the agricultural condition—valuable at the present, as inviting immigration, and in the future as affording a substantial basis of comparison. Perhaps if secretaries were paid a fair compensation for their services,

there would be marked improvement. The very fewest number receive any salary at all, but give their time and attention to the business of the society for its honorary awards. If exhibitors would do as much—or a fourth as much—if they would be content with less premiums, and they too be satisfied with the “glory” of it, there would be something to pay a secretary, and something more to place every society in the State upon a firm foundation.

The question was asked in the Society’s circular last year—how to manage county societies? What the best ticket system? How to gain active co-operation of farmers? How to extend their usefulness, &c. In reply there are very many valuable suggestions and experiences, that will appear in the several reports. We mention only that the general plan of issuing a membership ticket for \$1.00, admitting the member and his family, has few advocates remaining. It is generally conceded that the dollar ticket, admitting every person in a school-district, or perhaps township, is illy calculated to develop a full treasury. The plan of charging for each admission, and allowing no one to carry a ticket, should be, and soon will be adopted.

The receipts from all sources in 1868, were \$53,470.81; the amount paid in premiums \$33,990.50, or nearly 64 per cent; in 1869, receipts \$66,209; paid in premiums, \$39,573; or nearly 60 per cent. This leaves but little margin for permanent improvements, and the multitude of incidental expenses necessarily attendant upon such exhibitions.

The following table shows receipts, number of societies, &c., for the years named:

	1865	1866	1867	1868	1869
Number of societies reporting.....	30	40	45	58	65
Number of members.....	7143	9270	11333	21658	24073
Receipts from all sources.....	\$15,275	\$20,248	\$25,477	\$53,470	\$66,209
Amount paid in premiums.....			\$18,180	\$33,990	\$39,573

The total amount of appropriation in aid of the several agricultural societies for the current year is \$13,463.

Everywhere the interest in these organizations is increasing. The fairs are the instrument for calling the people together, for relaxation

from the toils of the farm, the work-shop and counting-room. They are a book out of which every visitor may read something useful and instructive. They are the special occasion of relating experiences and comparing observations. They are a market where stock, and implements, and grains may be bought or exchanged. They are a potent agency in the cultivation of the social element; and moreover they afford rational amusement, and give a holiday to the overtaxed brains and muscles of a people, the tendency of whose life is to neglect the development of their powers in the direction of ease and comfort, and to allow the whole being to be absorbed in gain, of wealth, place, or fame. It is evidently, therefore, the duty of the Legislature to foster and encourage them.

The following table shows the name of secretary, post-office address, receipts, number of members, amount paid in premiums, &c., of the societies reporting to the State Society. This abstract will avoid the printing of many pages in the appendix, containing the reports of the different counties:

SOCIETIES REPORTING IN 1869.

DATE OF REPORT.	DATE OF CERTIFICATE.	NAME OF COUNTY.	OFFICER REPORTING.	P. O. ADDRESS OF OFFICER REPORTING.	NO. OF MEMBERS.	RECEIPTS.	PAID IN PREMIUMS.	DEBT.
	Dec. 16	Adair	S. C. Vance	Greenfield	34	\$ 37.00	\$ 30.00	
		1 Appanoose	A. A. Stanton	Centreville	1,300	604.00	436.00	\$500.00
Nov. 30		6 Allamakee	D. W. Adams	Waukon	203	736.00	245.00	
" 29		4 Butler	Martin Bailey	Butler Center	123	428.00	356.00	
Nov. 30	Nov. 30	Boone	A. L. Speer	Boonsboro	226	738.00	576.00	800.00
" 26	Dec. 9	Bremer	Grant Ellis	Waverly	200	300.00	250.00	
Nov. 30	Nov. 26	Belle Plaine	J. W. Filkins	Belle Plaine	112	824.00	624.00	2100.00
	Dec. 6	Black Hawk	R. A. Whitaker	Waterloo	231	587.00	545.00	1100.00
" 22	" 2	Benton	E. M. Steedman	Vinton	*200	434.00	340.00	700.00
	Nov. 20	2 Cedar Valley	Frank Neely	Cedar Falls	265	500.00	300.00	
Nov. 15	Nov. 26	Cass	L. L. Alexander	Atlantic	216	428.00	31.00	
	Dec. 29	Chickasaw	L. J. Young	New Hampton	206	300.00	200.00	
Oct. 18	Oct. 27	Cedar	S. L. Smith	Tipton	3,500	3820.00	1761.00	1500.00
	Nov. 23	2 Clayton	N. Hamilton	National	400	1307.00	631.00	700.00
Nov. 23	Nov. 26	Crawford	W. A. McHenry	Deuson	200	250.00	180.00	
" 30	Dec. 22	Central Iowa District	P. F. Bartle	Des Moines	500	2500.00	2200.00	200.00
Dec. 1	" 24	Clinton	W. W. Sanborn	Lyons	588	3300.00	2500.00	1100.00
" 1	" 24	Dallas	T. R. North	Dallas Center	109	236.00	230.00	
Nov. 21	Nov. 26	Davis	Jno. A. Demuth	Bloomfield	275	780.00	500.00	
Dec. 1	Dec. 31	Des Moines	S. F. Rouse	Burlington	200	4185.00	3245.00	
Nov. 27	" 2	DeCATUR	S. H. Gates	Leon	105	250.00	232.00	300.00
Dec. 28	Dec. 3	DeLaware	J. Piper	Manchester	900	1130.00	700.00	
Nov. 28	Nov. 3	Fayette	S. S. Ainsworth	West Union	241	684.00	418.00	200.00
Oct. 13	Dec. 6	Floyd	J. S. Root	Charles City	208	509.00	640.00	1000.00
Nov. 30	Nov. 30	Guthrie	E. Kosterbader	Guthrie Center	210	275.00		
Oct. 22	" 29	Hardia	J. Seaton Kelso	Ackley	260	572.00	248.00	900.00
Nov. 27	" 29	Henry	John Hensman	Mt. Pleasant	*1,300	2300.00	1200.00	300.00
Oct. 25	" Harrison and Monona	C. W. Oden	Little Sioux	242	353.00	430.00		
Dec. 1	Dec. 24	Humboldt	Eber Stone	Lot's Creek	21	20.00	15.00	
Nov. 22	Nov. 26	Howard	Wm. R. Mead	Cresco	252	*300.00	145.00	40.00

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Nov. 26	Dec. 9	Ida.	M. G. Aldrich	Ida.	51	\$ 140.00	\$ 93.00	
Nov. 19	Nov. 26	Iowa	John S. Swaney	Marengo	363	892.00	824.00	
" 30	Dec. 2	Jasper	L. W. Allum	Newton	207	495.00	450.00	
Dec. 1	" 3	Jackson	A. O. E. Tubb	Maquoketa	415	1202.00	1000.00	\$200.00
Nov. 30	" 3	Jefferson	John R. Shaffer	Fairfield	357	1099.00	661.00	500.00
Dec. 1	" 3	Johnson	S. E. Paice	Iowa City	297	543	1483.00	1500.00
Nov. 23	Nov. 17	Jones	Robt. Dott.	Anamosa	543	920.00	865.00	
" 23	Nov. 17	Kossuth	A. E. Wheelock	Algona	60	63.00	50.00	10.00
" 22	" 1	Lee	O. F. Lusk	Clay Grove	450	1090.00	825.00	
Nov. 23	Dec. 8	Louisa	E. H. Lacey	Wapello	287	1118.00	400.00	
" 20	" 1	Lucas	L. N. Elliott	Chariton	266	540	520.00	
" 23	Nov. 29	Mills	Wm. D. Davis	Marion	469	600.00	352.00	500.00
" 20	" 26	Marshall	Wm. Brenner	Glenwood	525	750.00	284.00	490.00
" 29	" 30	Montgomery	E. Kretschmer	Marshalltown	200	195.00	188.00	
" 28	" 30	Monroe	W. R. Kelsey	Red Oak Junction	392	614.00	505.00	530.00
" 26	" 29	Mahaska	J. H. Green	Albia	1250	2377.00	1210.00	1200.00
" 25	" 29	Madison	E. G. Perkins	Oskaloosa	243	530.00	500.00	100.00
	" 25	Mitchell	F. Christoffel	Winterset	740	1852.00	285.00	162.00
Dec. 1	Dec. 27	Muscatine	John Mahin	Muscatine	130	185.00	* 130.00	
Nov. 30	Dec. 13	Page	S. K. Kridelbaugh	Clarinda	190	480.00	326.00	
" 26	Nov. 26	Poweshiek	Anton Cole	West Brooklyn	46	94.00	115.00	
Nov. 23	" 26	Ringold	W. K. Dorrance	Mt. Ayr	2000	9582.00	5418.00	3250.00
" 26	" 26	Scott	W. K. Haight	Davenport	375	320.00	400.00	
" 24	" Story (at Ames)	W. D. Lucas	W. D. Lucas	Ames	37	74.00	174.00	
Dec. 14	Dec. 14	Story (at Nevada)	C. M. Robins	Harlan	200	435.00	363.00	400.00
Nov. 23	Nov. 7	Tama	Sam. S. Statler	Nevada	48	237.00	209.00	156.00
" 27	Nov. 30	Union Agri. Society	Edwin Carter	Tama City	170	1490.00	1400.00	550.00
" 16	Dec. 26	Union District	Alonzo Shaw	West Liberty	206	1074.00	1064.00	1300.00
" 20	" 3	Van Buren	Allen G. Bharit	Keosauqua	295	1212.00	650.00	463.00
Oct. 22	Oct. 30	Wapello	E. G. White	Ottumwa	97	156.00	910.00	290.00
Nov. 19	Nov. 26	Wayne	W. W. Thomas	Corydon	400	608.00	463.00	630.00
" 6	Winneshiek	Henry W. Bennett	Decorah	215	334.00	350.00		
Dec. 21	Washington	G. G. Bennett	Washington	130	1917.00	1218.00	3000.00	

* Estimated.

No. 17]

REPORT OF THE SECRETARY.

THE SOCIETY'S EXHIBITION IN 1869.

The sixteenth annual fair was held on the grounds of the Union Agricultural and Stock Association, situated near the city of Keokuk. The object of the formation of this association, is the importation, exchange and rearing of improved breeds of stock. Through the enterprise and liberality of its founders and managers, fine blooded horses, cattle, sheep, jacks, jennets, swine, &c., have been introduced, and the general public recognizing the utility of such a society, and availing themselves of the opportunity to purchase thoroughbreds, or to cross with them, has been largely benefitted.

The grounds comprise fifty-seven acres, fitted up with a fine half-mile track; an amphitheatre with a capacity of five thousand; a fine art hall, in the shape of a Greek cross, thirty by one hundred and sixty feet, three commodious halls,—one for fruits and flowers, another for grains and vegetables, another for the display of machinery to be moved by steam; over four hundred admirably constructed stalls and pens for live stock, large cisterns and pools for water, carriage drives, saloons, &c. There are on the grounds several beautiful young groves; the soil is sandy, so that even a heavy rain would not incommode an exhibition any great length of time, the surface sufficiently broken to give good drainage and make the appearance picturesque; and the whole is substantially enclosed.

Contiguous to it, the society owns about twenty acres, which served an admirable purpose, affording space for hitching teams, camping, &c.

The local committee completed all arrangements agreed upon, and more. They caused to be opened up a new street, more than a mile in length, to give better access to the grounds; they caused the passage of an ordinance by the city authorities, fixing the price of transportation to the grounds at twenty-five cents; they aided the society in securing a full representation in several usually neglected departments; and in every other way possible contributed to make the exhibition a memorable occasion. The ladies of

Keokuk worked with energy, and after decorating the halls, filled them with articles of merit and beauty and value of their own handiwork. It is worthy of special notice that the citizens of Keokuk were the first to offer special prizes to any considerable amount; these were a potent agency in filling up some of the classes. For example: The Union Stock and Agricultural Association offered \$60 for best colts got by their horses; Capt. Ad. Hine, \$25 for span of draft horses; the Pork Packers' Association, \$125 for best boar and sow; the butchers, \$100 for best beef cattle; C. F. Davis, \$5 for best trio chickens; Wm. Stimpson, \$5 for coach dogs; Kittle, Boner & Co., \$25 for two-horse wagon; Sam'l G. Bridges, \$25 for best jewelry; Robertson & Athers, \$20 for fall wheat; Wickersham & Delaplain, \$5 for early rose potatoes; D. Roddington, \$5 for wine; Mrs. C. F. Davis, \$15 for silk quilt and tidy; Mrs. Jas. F. Cox, \$10 for butter; &c., &c. The competition was greatly increased by these special inducements, and the parties offering them are entitled to the highest praise.

The fair was national in its character. The competition is open to the world; and this wise and liberal policy induced many from a distance to visit our State and enter into friendly rivalry with our people. Thus, in the classes of live stock, Iowa, Illinois, Michigan and Missouri were represented; and the counties of Jefferson, Des Moines, Lee, Washington, Wapello, Lucas, Louisa, Polk, Henry, Johnson, Keokuk, Mahaska, Van Buren, Dubuque, Story and Black Hawk. There were samples of implements from New York, Iowa, Ohio, Illinois, Pennsylvania, Minnesota, New Hampshire, Nebraska, Indiana, Wisconsin, Connecticut, Michigan, Massachusetts and Maryland, and from sixteen counties of Iowa. In other classes, Tennessee, Mississippi and Louisiana were represented, and the counties of Clinton, Scott, Clayton, Muscatine, Allamakee, Jasper, Iowa, Marshall, and Winneshiek, making in all of States of the Union eighteen, and of counties in Iowa twenty-eight. These all had articles on exhibition.

Some of our friends complained of the action of the executive committee locating the fair at Keokuk, a point so far removed from

the geographical center of the State. They condemned it in not the mildest terms, and for a short season exerted adverse influence, to our manifest injury. But they seemed to conclude it were better to await results than to prophesy failure, and it is believed that the above synopsis will indicate with great clearness that the location at Keokuk was after all the dictate of a sound discretion. The Illinois State Society has held its fairs at Quincy and Chicago—the Ohio, at Toledo, Cleveland and Zanesville—the Pennsylvania, at Pittsburg and Philadelphia—the Michigan at Detroit,—besides at numerous other places, indicating that the true policy of such societies is to give each portion of the State in its turn, the benefits of the annual exhibition.

And what are these benefits? Very many, among which we name: 1st—The inducement held out to breeders of fine stock to place their animals on exhibition and to find a good market for them. 2d—To compare the hundreds of implements of husbandry, and have opportunity to make a competitive examination. 3d—To allow exhibitors to reach a new class of people every two or three years. 4th—To enable the citizens of each locality to compete in those divisions which are essentially made up of the contributions of those living within a few miles of the fair grounds. 5th—To afford amusement and recreation to thousands—to afford them a holiday, from whose enjoyments they will return with renewed alacrity and delight to the toils of the office, the shop, and the farm.

The weather was generally favorable during the fair. Monday, Sept. 12th, a high south wind prevailed and the dust was insufferable; at night copious rains fell, relieving that difficulty, and being followed by a cloudy, cool day, Tuesday 13th. Heavy rains fell early Wednesday, 14th, but it soon became clear, warm and pleasant, and from this to the close of the fair on Friday, it was all that could be desired—clear skies and balmy airs inviting the thousands to witness the grandest display of articles ever collected on a State Fair ground in the northwest.

The following table shows the entries for the years named :

ENTRIES.	1856	1857	1858	1859	1863	1864	1865	1866	1867	1868	1869
Cattle.....	145	169	146	125	84	74	67	79	94	105	139
Horses.....	182	196	179	156	139	150	217	176	188	140	278
Males.....	14	13	30	34	28	85	23	30	12	11	34
Sheep.....	22	10	33	37	78	107	77	159	118	138	31
Swine.....	27	19	26	38	47	52	40	27	48	94	164
Implements.....	113	86	25	26	126	181	221	205	379	278	333
Farm products.....	106	192	130	190	128	100	151	139	251	222	415
Other classes.....	247	444	475	673	487	303	480	519	706	606	1361
Total.....	856	1129	1044	1269	1107	1052	1276	1334	1796	1594	2645

Thus the entries exceeded the highest number ever reached before, by 849; and was nearly three times as great as the third exhibition in 1856. This fact is highly gratifying to the friends of the Society for it clearly indicates a steady, healthy growth in its extent, and gives evidence of continued public confidence in the administration of its affairs.

The subjoined table shows the receipts during the Fairs, and the amounts distributed in premiums for the several years named.

RECEIPTS.

1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869
\$3062	\$3054	\$2843	\$2116	\$3726	\$2056	\$3376	\$4454	\$7877	\$8522	\$4460	\$6527	\$7132	\$12075

PAID IN PREMIUMS FOR THE SAME YEARS.

\$1834	\$1679	\$1612	\$1922	\$2307	\$2055	\$2844	\$3988	\$3340	\$4183	\$3680	\$3947	\$4810	\$4775
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PER CENT. OF PREMIUMS PAID.

59	55	32	47	40	50	51	60	34	42	57	34	52	40
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These figures demand a brief explanation, and deserve a word of comment. By *receipts* are meant the actual amounts realized at the Fair: the gross receipts since 1857 are \$2,000 more than the above, being the annual State appropriation. The other expenses than premiums are for salaries, stationery, postage, printing, police, forage, etc., as indicated by the vouchers accompanying the treasurer's and secretary's financial statements, and published annually in the Volume of Transactions. The following comparative table has been compiled to indicate with what degree of economy and with what reference to the objects of the Society, its affairs have been administered.

YEAR.	State Society.	Gross Receipts	Premiums.	Per cent of rec'pts and premiums.
1869	Indiana ¹	\$ 7,080	\$3,994	56
1863	Illinois.....	15,351	4,862	32
1863	Iowa.....	6,654	3,998	60
1865	Indiana.....	14,567	2,531	17
1865	Wisconsin.....	11,897	3,343	28
1865	New York.....	21,003	3,769	13
1865	Iowa.....	10,522	4,460	42
1868	Wisconsin.....	9,377	5,412	58
1868	Iowa.....	9,132	4,810	52
1867	New York.....	25,238	4,076	16
1867	Iowa.....	11,527	3,947	34
1864	Illinois.....	24,434	8,144	35
1864	New York.....	18,595	4,208	22
1864	Iowa.....	9,877	3,349	34

Or, while Indiana has paid respectively 56 and 17 per cent; Illinois 32 and 35, Wisconsin 28 and 58, New York 13, 16 and 22, Iowa has paid 60, 42, 52, and 34, rising above the highest, having a greater average than any of the States Societies named, and never reaching anything like the lowest figures.

ACKNOWLEDGMENTS.

We are indebted to the monthly reports of the Department of Agricultural for reliable figures and suggestions in this report; and also to the officers of the several railroad companies for their labors in furnishing statistical matters of great interest and importance, as affording an index of the growth and prosperity of the State.

Respectfully submitted,

J. M. SHAFFER, *Secretary.*

FAIRFIELD, Iowa, January 12, 1870.

