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NEW YORK FARM BUSINESS CHARTS

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NEW YORK FARM BUSINESS CHARTS

Farm Business Charts showing the range of experience of New York farmers have been prepared for use in analyzing farm businesses. In preparing these charts all available information on farmers' experiences has been used. The most important sources of information have been:-

(a) New York cost account farms,

(b) Farm management surveys,

(c) Extension farm business management records,

(d) New York Crop Reporting Service,

(e) United States Census of Agriculture.

In combining this information the goal has been to have the chart represent the following:-

(a) Commercial farmers

(b) Normal weather

(c) Present technology (the technology of the date of printing)

There are presented here the charts which were published in 1946 (white), 1958 (green), and 1970 (blue).

A comparison of the charts for various years shows changes which have occurred on New York's commercial farms. For example, the median of the top ten percent in milk per man was 125,000 pounds in 1946, 225,000 pounds in 1958, and 475,000 pounds in 1970.

The middle of the top ten percent in hens per man in 1946 was 1350. The middle of the lowest ten percent in hens per man in 1970 was 2000.

On the back of the charts, work unit standards are shown. The work units per head or per acre represent the number of ten-hour units of time required to care for one animal or one acre, under average conditions. In 1946, a dairy cow represented 16 work units (160 hours). This was reduced to 7.5 units in 1970. During this twenty-four year period, the average amount of milk sold per cow increased from 6200 pounds to 10,000 pounds. Sixty-one percent more milk per cow with a fifty-three percent reduction in labor!

The labor on an acre of corn for grain was reduced from 45 hours to 6 hours, while the average yield per acre increased from 40 bushels to 75 bushels.

FARM BUSINESS CHART

FARM OF _____ **YEAR** _____ **LAND CLASS** _____

TOTAL ACRES IN THE FARM _____ **ACRES OF TILLABLE LAND** _____

Success in farming is the result of many factors. Farm business studies show that the most important factors under the farmer's control are size of business, production rates of crops and animals, labor efficiency and selection and combination of enterprises.

The chart below shows the range of the experience of **business** farmers in New York with respect to size of business, production rates and labor efficiency.

The figure at the top of each column is the average for the best ten per cent of the farms in that factor. For example, the figure 2.8 at the top of the column headed "Tons of Hay" is the average of the ten per cent of the farms with the highest yield of hay. The other figures in the column are the averages for "the next best 10 per cent", "the 10 per cent below that", and so forth. The figure 0.8 at the bottom of the column is the average of the ten per cent of the farms with the lowest yield of hay.

Each of the columns is independent of the others. The figure 16 at the top of the column headed "Tons of Corn Silage" is the average of the ten per cent of the farms with the highest yield of corn silage.

Hay, Silage and Grain Yields per Acre								Vegetable Crop Yields per Acre							Fruit Yields per Acre			
											CANNING CROPS							
Tons of Hay	Tons of Corn Silage	Bu. of Oats	Bu. of Barley	Bu. of Oats & Barley	Bu. of Wheat	Bu. of Shell'd Corn	Bu. of Buckwheat	Bu. of Dry Beans	Bu. of Potatoes	Tons of Cabbage	Lbs. of Peas	Tons of Tomatoes	Tons of Sweet Corn	Tons of Snap Beans	Bu. of Apples	Bu. of peaches	Tons of grapes	Tons of Cherries
2.8	16	62	45	55	40	72	30	30	310	18	3000	15	4.0	3.5	310	280	4.0	6.5
2.2	14	50	39	47	35	58	26	25	265	15	2300	12	3.2	2.7	250	210	3.1	4.2
2.0	13	43	34	41	32	51	24	21	235	13	1900	11	2.7	2.2	215	170	2.6	3.0
1.8	12	38	31	36	29	46	22	18	210	11	1600	10	2.4	1.9	190	150	2.2	2.3
1.6	11	35	28	32	27	42	20	16	185	10	1400	9	2.2	1.7	170	135	1.9	2.0
1.4	10	32	26	29	25	38	18	14	165	9	1300	8	2.1	1.6	155	120	1.7	1.9
1.3	9	28	23	26	23	33	16	12	145	8	1100	7	1.9	1.4	140	100	1.5	1.6
1.2	8	24	20	22	21	27	13	10	125	7	900	6	1.7	1.2	120	80	1.3	1.3
1.0	7	19	16	17	18	20	10	8	105	5	700	5	1.3	1.0	95	55	1.0	0.9
0.8	5	13	10	11	12	12	4	5	80	2	300	3	0.8	0.6	60	25	0.5	0.4

Animal Production			Poultry Mortality		Size of Business				Labor Efficiency			
Pounds Fat Sold per Cow	Pounds Milk Sold per Cow	No. of Eggs per Hen	Hens Per Cent of Ave. No.	Chicks Per Cent of No. Started	Total Work Units	Man Equivalent	Number of Cows	Number of Hens	Work Units per Man	Cows per Man	Hens per Man	Hundredweight of Milk Sold per Man
337	9100	200	9	4	1170	4.1	40	3000	390	17	1350	1250
292	7900	190	12	6	830	3.1	30	2300	320	14	1100	1000
270	7300	180	15	8	660	2.6	25	1800	290	12	850	830
252	6800	170	18	10	560	2.3	21	1500	270	11	700	720
237	6400	163	21	12	490	2.0	18	1200	250	10	620	640
222	6000	157	23	14	440	1.9	16	900	240	9	580	600
207	5600	150	27	17	400	1.7	14	800	220	8	530	550
189	5100	140	32	22	360	1.5	12	700	200	7	470	490
170	4600	130	38	28	300	1.3	10	550	180	6	400	420
137	3700	120	45	35	230	1.0	8	400	150	5	300	300

HOW TO USE THIS CHART

You can draw lines in each column to show the rank of the farm business being studied. For example, if the farm produced 40 bushels of oats per acre draw a line in the "oats" column between the 38 and 43.

Draw heavy lines so that you can see them easily.

Do not draw lines for factors which are of only minor importance on the farm being studied.
The columns headed "Number of Hens" and "Hens per man" should be used only for commercial poultry farms.
Note that the cow production is in terms of the amount **sold**, not the total production.

PREPARED BY DEPARTMENT OF AGRICULTURAL ECONOMICS, NEW YORK STATE COLLEGE OF AGRICULTURE, ITHACA, NEW YORK

February, 1946

BUSINESS ANALYSIS FOR FARM OF _____

WORK UNITS FOR LIVESTOCK AND CROPS

LIVESTOCK	Number or amount on this farm		Work units per head		Total work units
Cows		×	16	=	
Heifers		×	2	=	
Bulls		×	5	=	
Hens		×	0.2	=	
Pullets raised		×	0.07	=	
Brood sows		×	3	=	
Hogs raised		×	1	=	
Ewes and rams		×	0.5	=	
		×		=	
		×		=	
		×		=	

MAN EQUIVALENT

Workers	Full-Time Months
Operator	
Hired men	
Sons	
Other	
Total	
Man equivalent (Total ÷ 12)	

CROPS			Work units per acre			Yield per acre	Total Crop	
Hay		×	1	=				tons
2nd and 3rd cuttings		×	1*	=				tons
Corn Silage		×	3	=				bu.
Corn for grain		×	4.5	=				bu.
Oats		×	1.5	=				bu.
Barley		×	1.5	=				bu.
Oats and Barley		×	1.5	=				bu.
Wheat		×	1.5	=				bu.
Buckwheat		×	1.5	=				bu.
Dry beans		×	3	=				bu.
Potatoes		×	7	=				bu.
Cabbage		×	9	=				tons
Sweet corn for canning		×	4	=				tons
Tomatoes for canning		×	14	=				tons
Apples, commercial		×	12	=				bu.
Home orchard		×	3	=				
Fruit not of bearing age		×	2	=				
		×		=				
		×		=				
		×		=				

MISCELLANEOUS					
Work off farm, per day		×	1	=	
		×		=	
		×		=	
			Total work units		

*One work unit per acre for each cutting

WORK UNITS PER MAN

(Total work units ÷ man equivalent)

Total pounds of fat sold	÷	no. of cows	=		pounds of fat sold per cow
Total pounds of milk sold	÷	no. of cows	=		pounds of milk sold per cow
Total dozen of eggs produced	÷	no. of hens	=		dozens of eggs produced per hen
Dozens of eggs per hen × 12	=				eggs produced per hen
Number of hens that died	÷	av. no. of hens for the year	=		% mortality
Number of chicks that died	÷	no. of chicks started	=		% mortality
Number of cows	÷	man equivalent	=		cows per man
Number of hens	÷	man equivalent	=		hens per man
Hundredweight of milk sold	÷	man equivalent	=		Cwt. of milk sold per man

FARM BUSINESS CHART

FARM OF_____ YEAR_____ LAND CLASS_____

TOTAL ACRES IN THE FARM_____ ACRES OF TILLABLE LAND_____

Success in farming is the result of many factors. Farm business studies show that the most important factors under the farmer's control are size of business, production rates of crops and animals, labor efficiency and selection and combination of enterprises.

The chart below shows the range of the experience of commercial farmers in New York with respect to size of business, production rates and labor efficiency.

The figure at the top of each column is the average for the best ten per cent of the farms in that factor. For example, the figure 3.4 at the top of the column headed "Tons of Hay" is the average of the ten per cent of the farms with the highest yield of hay. The other figures in the column are the averages for "the next best 10 per cent", "the 10 per cent below that", and so forth. The figure 1.2 at the bottom of the column is the average of the ten per cent of the farms with the lowest yield of hay.

Each of the columns is independent of the others. The figure 16 at the top of the column headed "Tons of Corn Silage" is the average of the ten per cent of the farms with the highest yield of corn silage.

Hay, Silage and Grain Yields per Acre						Vegetable Yields per Acre							Fruit Yields per Acre			
Tons of Hay	Tons of Grass Silage	Tons of Corn Silage	Bu. of Shelled Corn	Bu. of Oats	Bu. of Wheat	Lbs. of Dry Beans	Cwt. of Potatoes	Tons of Cabbage	Lbs. of Peas	Tons of Tomatoes	Net Tons of Sweet Corn	Tons of Snap Beans	Bu. of Apples	Bu. of Peaches	Tons of Grapes	Tons of Sour Cherries
3.4	11.0	16	95	75	50	2200	320	30	3400	20	4.0	3.2	500	290	6.5	6.6
2.8	9.0	14	80	60	43	1900	275	24	2800	17	3.2	2.7	440	220	5.0	4.6
2.5	8.0	13	70	55	40	1700	250	21	2400	15	2.8	2.3	390	180	4.0	3.6
2.3	7.0	12	60	50	37	1500	230	18	2100	13	2.5	2.0	340	160	3.6	3.0
2.1	6.5	11	55	45	34	1300	215	16	1900	12	2.3	1.8	300	140	3.2	2.6
2.0	6.0	10	50	42	32	1100	205	14	1700	11	2.1	1.7	270	120	2.9	2.2
1.8	5.5	9	45	39	30	1000	190	12	1500	10	1.9	1.5	240	100	2.6	1.8
1.6	5.0	8	40	35	28	900	170	10	1200	9	1.7	1.3	210	80	2.2	1.4
1.4	4.5	7	35	30	25	800	150	8	900	8	1.4	1.1	175	55	1.8	1.0
1.2	3.5	5	25	25	20	600	120	6	500	6	1.0	0.7	125	25	1.0	0.5

Animal Production		Poultry Mortality		Size of Business					Labor Efficiency			
Pounds Milk Sold per Cow	Eggs Sold per Hen	Hens Per Cent of Ave. No.	Chicks Per Cent of No. Started	Total Work Units	Man Equivalent	Number of Cows	Pounds of Milk Sold	Number of Hens	Work Units per Man	Cows per Man	Pounds of Milk Sold per Man	Hens per Man
11500	250	6	2	1100	3.6	55	475000	9000	420	27	225000	3200
9500	230	10	4	760	2.8	40	325000	5000	340	22	175000	2600
8300	215	13	6	620	2.4	34	270000	4000	310	20	150000	2300
7700	210	15	8	550	2.1	30	230000	3400	290	18	130000	2100
7300	205	17	9	490	1.9	28	200000	3000	270	16	110000	1900
6900	200	19	10	450	1.7	26	180000	2600	250	14	100000	1800
6500	195	21	11	410	1.5	24	160000	2200	230	13	92000	1600
6000	185	24	13	360	1.3	21	140000	1800	210	12	84000	1400
5500	175	28	16	310	1.1	18	110000	1500	190	11	76000	1200
4500	160	35	20	250	1.0	13	80000	1200	160	10	60000	1000

HOW TO USE THIS CHART

Draw lines in each column to show the rank of the farm business being studied. For example, if the farm produced 47 bushels of oats per acre draw a line in the "oats" column between the 45 and 50.

Draw heavy lines so that you can see them easily.

Do not draw lines for factors which are of only minor importance on the farm being studied.

PREPARED BY DEPARTMENT OF AGRICULTURAL ECONOMICS, NEW YORK STATE COLLEGE OF AGRICULTURE, ITHACA, NEW YORK, FEBRUARY, 1958.

February 1958

WORK UNITS FOR LIVESTOCK AND CROPS

LIVESTOCK	Number or acres on this farm		Work units per head or per acre		Total work units
Cows		×	11	=	
Heifers		×	2	=	
Bulls		×	5	=	
Hens		×	0.1	=	
Pullets raised		×	0.015	=	
Broilers raised		×	0.005	=	
Brood sows		×	3	=	
Hogs raised		×	0.2	=	
Ewes and rams		×	0.5	=	
		×		=	

MAN EQUIVALENT

Workers	Full-Time Months
Operator	
Sons	
Family	
Hired men	
Other	
Total	
Man equivalent (Total ÷ 12)	

CROPS						Yield per acre	Total Crop
Hay—1st cutting		×	0.6	=			tons
2nd and 3rd cuttings		×	0.4	=			
Grass Silage		×	0.8	=			tons
Corn Silage		×	1.4	=			tons
Corn for grain		×	1	=			bu.
Oats		×	0.8	=			bu.
Wheat		×	0.8	=			bu.
		×		=			
		×		=			
Dry beans		×	2	=			lbs.
Potatoes		×	9	=			cwt.
Cabbage		×	9	=			tons
Sweet corn (growing only)		×	1	=			tons
Tomatoes for canning		×	12	=			tons
		×		=			
		×		=			
		×		=			
		×		=			
Apples		×	12	=			bu.
Fruit not of bearing age		×	2	=			

OTHER					
Work off farm, days		×	1	=	
Marketing		×		=	
		×		=	

WORK UNITS PER MAN

(Total work units ÷ man equivalent)

TOTAL WORK UNITS

Total pounds of milk sold ÷ no. of cows = pounds of milk sold per cow

Total pounds of milk sold ÷ man equivalent = pounds of milk sold per man

Number of cows ÷ man equivalent = cows per man

Total dozens of eggs sold ÷ no. of hens = dozens of eggs sold per hen

Dozens of eggs per hen × 12 = eggs sold per hen

Number of hens ÷ man equivalent = hens per man

Number of hens that died ÷ av. no. of hens for the year = % mortality

Number of chicks that died ÷ no. of chicks started = % mortality

FARM BUSINESS CHART

FARM OF _____ YEAR _____

TOTAL ACRES IN THE FARM _____ ACRES OF TILLABLE LAND _____

Success in farming is the result of many factors. Farm business studies show that the most important factors under the farmer's control are size of business, production rates of crops and animals, labor efficiency and selection of enterprises.

The chart below shows the range of the experience of commercial farmers in New York with respect to size of business, production rates and labor efficiency.

The figure at the top of each column is the median of the highest ten per cent of the farms in that factor. For example, the figure 3.8 at the top of the column headed "Tons of Hay" is the median of the ten per cent of the farms with the highest yield of hay. The other figures in the column are the medians for "the next best 10 per cent," "the 10 per cent below that," and so forth. The figure 1.2 at the bottom of the column is the median of the ten per cent of the farms with the lowest yield of hay.

Each of the columns is independent of the others. The figure 22 at the top of the column headed "Tons of Corn Silage" is the median of the ten per cent of the farms with the highest yield of corn silage.

Hay, Silage, Grain Yields per Acre					Vegetable Yields per Acre							Fruit Yields per Acre			
Tons of Hay	Tons of Corn Silage	Bu. of Corn	Bu. of Oats	Bu. of Wheat	Lbs. of Dry Beans	Cwt. of Potatoes	Tons of Cabbage	Cwt. of Onions	Tons of Tomatoes	Net Tons of Sweet Corn	Tons of Snap Beans	Bu. of Apples	Bu. of Pears	Tons of Grapes	Tons of Sour Cherries
3.8	22	120	92	58	2,300	340	32	470	23	5.0	2.8	540	330	7.5	6.6
3.0	19	100	80	52	1,900	305	26	410	19	4.4	2.5	480	260	6.0	4.6
2.7	17	90	70	47	1,700	285	23	370	17	3.9	2.3	430	230	5.5	3.6
2.4	16	83	65	44	1,500	265	20	345	15	3.7	2.1	390	200	5.0	3.0
2.2	15	78	60	41	1,300	250	18	320	14	3.5	1.9	355	180	4.6	2.6
2.1	14	73	56	39	1,100	240	16	300	13	3.3	1.8	325	160	4.2	2.3
1.9	13	65	52	37	1,000	225	14	280	12	3.1	1.7	295	140	3.8	2.0
1.7	12	55	48	34	900	205	12	250	11	2.8	1.5	260	120	3.4	1.6
1.5	11	45	40	30	800	185	10	220	10	2.3	1.3	220	100	3.0	1.2
1.2	8	30	30	25	600	150	8	170	9	1.5	1.1	180	70	2.5	0.8

Dairy Farms					Labor			Poultry Farms				
Number of Cows	Pounds of Milk Sold	Pounds Milk Sold per Cow	Cows per Man	Pounds of Milk Sold per Man	Total Work Units	Man Equivalent	Work Units per Man	Number of Hens	Eggs Sold per Hen	Hens per Man	Dozens of Eggs Sold per Man	Pounds Feed per Dozen Eggs
95	1,000,000	14,500	38	475,000	1,000	3.5	420	55,000	250	12,000	240,000	4.0
60	640,000	12,500	32	350,000	720	2.7	340	30,000	235	9,500	175,000	4.3
50	530,000	11,500	28	300,000	590	2.3	310	20,000	225	7,500	125,000	4.6
42	450,000	10,900	25	260,000	520	2.0	290	16,000	220	6,000	100,000	4.7
39	400,000	10,300	23	230,000	460	1.8	270	12,000	217	5,000	85,000	4.8
36	355,000	9,700	21	210,000	430	1.6	250	9,500	214	4,000	75,000	4.9
32	315,000	9,000	20	190,000	390	1.4	230	7,000	210	3,500	65,000	5.0
28	265,000	8,100	19	175,000	350	1.3	210	5,200	205	3,000	55,000	5.2
24	210,000	7,200	17	160,000	310	1.2	190	4,000	200	2,500	45,000	5.4
20	150,000	6,000	14	120,000	250	1.0	160	3,000	185	2,000	35,000	5.8

HOW TO USE THIS CHART

Draw lines in each column to show the rank of the farm business being studied. For example, if the farm produced 57 bushels of oats per acre draw a line in the "oats" column between the 56 and 60.

Draw heavy lines so that you can see them easily.

Do not draw lines for factors which are of only minor importance on the farm being studied.

PREPARED BY S. W. WARREN, DEPARTMENT OF AGRICULTURAL ECONOMICS, NEW YORK STATE COLLEGE OF AGRICULTURE, ITHACA, NEW YORK, FEBRUARY, 1970

WORK UNITS FOR LIVESTOCK AND CROPS

LIVESTOCK	Number or acres on this farm		Work units per head or per acre		Total work units
Dairy Cows		×	7.5	=	
Beef Cows		×	2	=	
Heifers		×	2	=	
Hens (production only)		×	0.04	=	
Egg processing (per doz.)		×	0.002	=	
Pullets raised		×	0.004	=	
Broilers raised		×	0.003	=	
Brood sows		×	3	=	
Hogs raised		×	0.15	=	
Ewes		×	0.5	=	
		×		=	

MAN EQUIVALENT

Workers	Full-Time Months
Operator(s)	
Family (paid)	
Family (unpaid)	
Hired men	
Other	
Total	
Man equivalent (Total ÷ 12)	

CROPS						Yield per acre	Total Crop	
Hay		×	0.6	=				tons
		×		=				tons
Corn Silage		×	0.8	=				tons
Corn for grain		×	0.6	=				bu.
Oats		×	0.6	=				bu.
Wheat		×	0.6	=				bu.
		×		=				
		×		=				
Dry beans		×	1.5	=				lbs.
Potatoes		×	6	=				cwt.
Cabbage		×	9	=				tons
Snap beans for processing		×	1	=				tons
Onions		×	12	=				cwt.
		×		=				
		×		=				
		×		=				
		×		=				
Apples—growing		×	4	=				bu.
Apples—harvest—per bushel		×	0.02	=				

OTHER					
Work off farm, days		×	1	=	
Marketing		×		=	
		×		=	

WORK UNITS PER MAN

(Total work units ÷ man equivalent)

TOTAL WORK UNITS

Total pounds of milk sold	÷	no. of cows	=		pounds of milk sold per cow
Total pounds of milk sold	÷	man equivalent	=		pounds of milk sold per man
Number of cows	÷	man equivalent	=		cows per man
Total dozens of eggs sold	÷	no. of hens	=		dozens of eggs sold per hen
		Dozens of eggs per hen × 12	=		eggs sold per hen
Number of hens	÷	man equivalent	=		hens per man
Total dozens of eggs sold	÷	man equivalent	=		doz. of eggs sold per man
Total lbs. of feed for laying flock	÷	doz. of eggs sold	=		lbs. of feed per doz. eggs