# **MSU Extension Publication Archive**

Archive copy of publication, do not use for current recommendations. Up-to-date information about many topics can be obtained from your local Extension office.

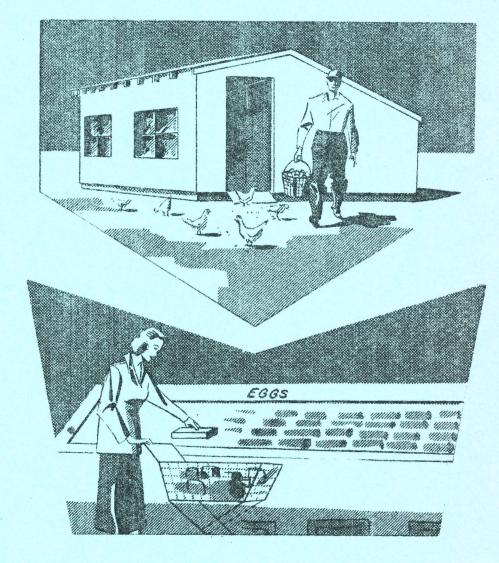
Egg Marketing II Michigan State University Cooperative Extension Service 4-H Club Bulletin N.A. Issued N.D. 14 pages

The PDF file was provided courtesy of the Michigan State University Library

Scroll down to view the publication.

# EGG MARKETING II

Suggested
Experiments
For
4-H'ers 12-14



Michigan State University Cooperative Extension Service 4-H Program East Lansing, Michigan

#### INTRODUCTION

Eggs have always been a major source of income to farmers in the United States. In 1960, the poultry industry was third in importance as a source of income for farmers. It was exceeded only by the income from meat animals and dairy products. The income from eggs alone represented more than 55 per cent of the farm income from poultry.

The egg is one of the most perfect foods known to man. It is especially valued for its proteins, vitamins and minerals for building and maintaining strong, healthy bodies.

Egg prices change during the year because of factors over which individual producers have no control. Even though there is much less seasonal change in egg prices now than in past years, prices still vary from the spring surplus-producing season to the fall months of low production.

Although there is little you can do to influence prices, there is a great deal you can do to maintain your present customers (and to gain future customers).

First of all, packaging is important to quality and appeal. All containers and materials used to package eggs for sale should be clean and strong enough to carry the eggs in good condition.

Proper handling is important too. Eggs should be cooled promptly after they have been gathered from the hen's nest, and kept under refrigeration until they are ready to be used.

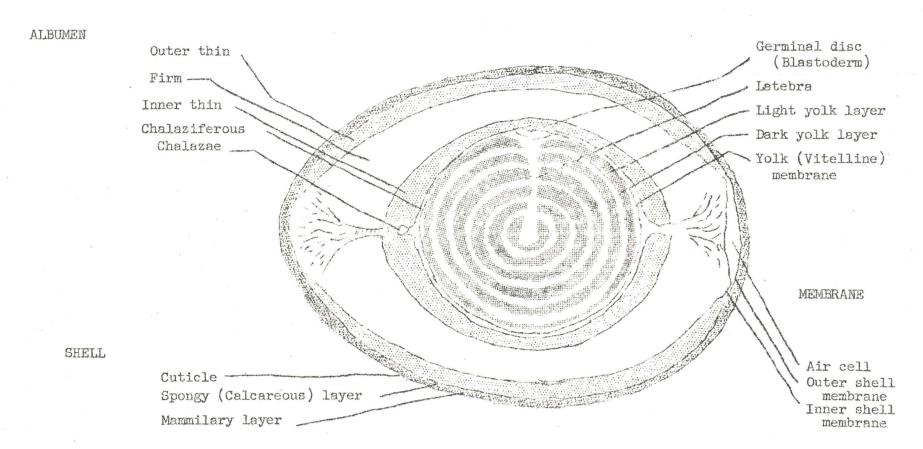
Experiments suggested in this 4-H Bulletin are designed for members enrolled in Egg Marketing II, or ages 12 - 14. You are free to choose experiments according to your age and likes. 4-H Bulletin 187.2B suggests some experiments that are more difficult and are designed for members 14 and over. When you reach 14, secure this bulletin for more interesting experiments.

Good luck with your egg marketing project!

## HOW'S AN EGG PUT TOGETHER?

Suggested for age group 12 - 14

OBJECTIVE:	of the	eciate egg quality we really need to know the various parts egg. Words like "vitelline", "blasdoderm" and "chalaza" are aningful after you work out this experiment.
MATERIALS:	One (1) Dinner	newly laid egg plate
PROCEDURE:	Become A. Wet car the obs	ly study the cross-section of the egg shown on page acquainted with the various parts and where they are located, a dinner plate and then break the egg on it. Be very efuldo not break the yolk or distort the albumen. Make following observations and do not proceed to the next ervation until you have (1) made the observation, (2) under-nd what has been done, and (3) recorded the observation.
	1.	Observe the two shell membranes clinging to the shell. In part of the egg are they most easily observed?
	2.	Observe the germinal disc (blastoderm) on the yolk. What is its color?
	3.	Observe the chalaza (whitish cords on both ends of the yolk).
		What is the purpose of the chalaza?
	11.	Find the vitelline membrane. What is its purpose?
	5.	A test of a good egg is whether or not the yolk can be picked up between the thumb and index fingers without breaking the vitelline membrane. Can you do this?



## DOES TEMPERATURE AFFECT EGG QUALITY?

Suggested for age group 12 - 14

OBJECTIVE:

Once an egg is laid its quality can never be improved. By proper handling though, deterioration can be slowed down. This study will show the effect temperature has on egg quality over time.

MATERIALS:

Eighteen (18) newly laid eggs.

Two - - - 1 dozen cartons.

"Marketing Eggs" - - - Farmer's Bulletin 1378 (available from Poultry Science Department, 113 Anthony Hall, M.S.U., East Lansing, Michigan).

Candling light.

Candling light.
Dinner plates (6).

PROCEDURE:

- A. Select eighteen (18) day-old eggs of approximately the same interior and exterior quality. Place 9 eggs in each of two cartons. Store 9 eggs at 50° 60°F. (or in refrigerator) and 9 at room temperature. Candle and break 3 eggs from each carton at the end of 1, 2 and 3 weeks. Make these comparisons:
  - (1) In front of candling light determine for each egg: Air cell size, appearance of white (clear, watery, blood spots, etc.) and appearance of yolk (centered, off center, enlarged, flattened, etc.). Grade each egg according to U.S. Standards (AA, A, B or C).
  - (2) Break each egg on a plate and observe the amount of thick white and size and shape of yolk. (Grade eggs again)
- B. Report your findings.

# DOES TEMPERATURE AFFECT EGG QUALITY?

NAME	
of the order property	

понилипаниний	иленалиопининги попинацион.	umuni)	outhinaneith)	interface in construction of the	international interpretation	the manufacture of the control of th	BROKEN - OUT			
	4	***************************************	Air	Cell	Size	Appearance of White	Appearance of Yolk	Grade	Grade	Comments
l Week Weeks		1						4		
	Room Eggs	2						1		
1		3				***************************************				
Week		1	an gariar in casan bindurina	a e nghraga (Al Albani vi A. 1 ga lan 1 dha e a		akadamang pinaka i magamban nggaganan alimagagan baransa di magamban sa karansa di mana antara di mana di mana	allagare ete embre agus agus ete inadata e e et anna e e e e e e e e e e e e e e e e e			riguações de America anti-America que do America, que que de Segregações (Hi comencidans Admi
	500-600F Eggs	2	***************************************							
		3		***************************************						
		1	ned demand for every surplice dispersion for	n, contractions of contract congression	Agent Assess on State of Sign on A to Sign on Assess		eggen deutsteg, die dit verstelligt in verstellt deutstern von deutstegt (stellen in verstellt deutsten deutst			
	Room Eggs	2		***************************************						
2		3					***************************************			***************************************
Weeks		1		n a changhachagain in an ann an aigeidhea	3	erge verlegtet film i er er er en eg floset, kom skiller i film film det en e	A MINOR COLOR OF MANAGEMENT OF THE PROPERTY OF			anga militaran meneralah dan sakat dipunya kepada permetanan ara- antara per
	50°-60°F Eggs	2		***************************************						
	To committee the contraction of	3		****************						
		1		er afrætt triget <del>Dymbor</del> er skut værd		Bronderer i room i reddische verken in werden verkelde voor, verkelde verkening vergen v	ettegerikki (d. 16 met der 1933) sembye der der se i d. 16 miliogenische Sergesseller			
	Room Eggs	2		***************************************						PV
3		3	******	***************************************				100		***************************************
Weeks		1	and a control of the	e residente de el super-selle estado		March March (March and Address of American American (March March March March American American American America	Монтабай это шабонфонте тебентення (така» () до состейнено простига до такан подата на простига на простига на	The state of the s	1	engadagani (1 100 saladininen) (Auden), Editio — (Antinonio
	500-600F Eggs	2	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************				A CONTRACTOR OF THE PARTY OF TH		
	-56-	3	***************************************	***************************************	,	***************************************			······	**************************************

## DO YOUR CUSTOMERS KNOW THEIR "EGGS?"

Suggested for age group 12 - 14

OBJECTIVE:

The poultryman depends on the consumer to buy his eggs. It is extremely important that the type of eggs be produced that the consumer wants. This experiment can help you learn what homemakers know about egg grades and how she buys eggs.

MATERIALS:

Questionnaires (you will need to make arrangements to have the following questionnaire mimeographed or reproduced so that you can leave it with your customers).

At least 10 egg customers.

PROCEDURE:

A. Select at least ten (10) egg customers, and ask them (or leave questionnaire with them) the questions listed below.

## QUESTIONNAIRE

ı.	What grade of eggs do you prefer?
	AA A B C (circle one)
2.	Are eggs refrigerated in your home?
	Yes
3.	What troubles do you have when you bu

What troubles do you have when you buy eggs? (check only the one or ones which concern you)

Too high price

Rough shells

Shells dirty

Desired size or color unavailable

Lack of freshness

Aesthetic -- "don't look as attractive as other foods"

None

4. What is your main complaint about eggs? (check one)
Poor flavor
Shells break too easily
Watery white
Off-color yolks
Blood and/or other spots
Bad odor
5. What do you consider most important when buying eggs? (check one)
Price
Size
Shell color or cleanliness
Quality or freshness
Reputation of seller
Others (list)
6. Why do you buy eggs from present supplier? (check one)
Price paid
Friend or relative
Convenience or habit
Fresher quality
Others (list)
7. If you saw the following prices for eggs, which would you think was a better buy for the money?
Large Grade A @ 60¢ per dozen
Medium Grade A @ 48¢ per dozen
8. How do you determine high egg quality?
B. Report your findings.

# DO YOUR CUSTOMERS KNOW THEIR "EGGS?"

## NAME:

1.	What grade of eggs do you prefer? (List number responding to each. Grade AA or A should be checked most.)
	A
	B
	C
2.	Are eggs refrigerated in your home? (List number responding to each. Eggs should be refrigerated.)
	Yes
3.	What troubles do you have when you buy eggs? (List number responding to each.)
	Too high price
	Rough shells
	Shells dirty
	Desired size or color unavailable
	Lack of freshness
	Aesthetic
	None
4.	What is your main complaint about eggs? (List number responding to each.)
	Poor flavor
	Shells break too easily
	Watery white
	Off-color yolks
	Blood and/or other spots
	Bad odor

### SHOULD I OIL TREAT MY EGGS?

Suggested for age group 12 - 14

#### OBJECTIVE:

Egg producers are constantly advised that they must produce a top quality product. To do this, various practices are recommended. One such practice is shell treatment with oil. This experiment will compare oiled eggs with eggs not oiled. Are oil treated eggs of better quality? Let's find out!

#### MATERIALS:

Aerosol oil bomb (these sprays containing a colorless, odorless mineral oil are available from most poultry suppliers or the Anderson Box Company, 700 West Morris St., Indianapolis 6, Indiana) Two (2) dozen eggs
Two 1 - dozen egg cartons
"Marketing Eggs", Farmers' Bulletin No. 1378 (available from Poultry Science Department, 113 Anthony Hall, M.S.U., East Lansing, Michigan).

#### PROCEDURE:

- A. Select two dozen eggs which are nearly alike in all respects quality, shape and size.
- B. Oil one dozen with aerosol spray and place in a clean carton. Place other dozen (not oiled) in another clean carton.
- C. Store eggs at same temperature (50° to 60°F. if egg cooler is available or in refrigerator).

  Remove 3 eggs from each carton at end of 3, 6, 9 and 12 weeks and make the following observations:
  - (1) In front of candling light determine for each egg:
    Air cell size, appearance of white (clear, watery,
    blood spots, etc.) and appearance of yolk (centered, off
    center, enlarged, flattened, etc.). Grade each egg according to U. S. Standards (AA, A, B or C).
  - (2) Break each egg on a plate and observe the amount of thick white and size and shape of yolk.
- D. Report your findings on attached sheet.

5.	What do you conside to each.)		tant when buying eggs? (List number responding
			Price
		,	Size
			Shell color or cleanliness
			Quality or freshness
			Reputation of seller
			Others (list)
			8. ₩
			b
			C
			d
			e =
6.	Why do you buy eggs	from present	supplier? (List number responding to each.)
			Price paid
			Friend or relative
			Convenience or habit
			Fresher quality
			Others (list)
			a. ··
			Ъ 🕶
			C
			d -
			e
-			
7.	If you saw the foll for the money? (Li answer.)	owing prices st number res	for eggs, which would you think was a better buy ponding to each. Medium Grade A is the correct
	ortp. McT. ● \		Large Grade A @ 60¢ per dozen
			Medium Grade A @ 48¢ per dozen
8.	How do you determin	e high egg qu	ality? (Hist the comments you received. Do your

# SHOULD I OIL TREAT MY EGGS?

iiniistamattailii liss	terredokius, artikirtifikius gati	iterieriteri					BROKEN - OUT			
			Air	Cell	Size	Appearance of White	Appearance of Yolk	Grade AA,A,B,C	Grade AA,A,B,C	Comments
TO THE PARTY OF TH		1								
3	Oiled Eggs	2								40 TO
	-00-	3								
Weeks		1								
	Eggs Not	2		:	************					
	Oiled	3	*************	151661416711144111						***************************************
the and deposits the new responses		1	armente de Carlando Andre			анскул уурун баруучуг төйнөөт таруулуу (энгүүс эс эргэ эс дүүс б	erandin (againe) - seran No. (erandin si erandi	general franchisco (confidencia martifici) - Lennancia franchisco (confidencia con confidencia con confidencia	were place to be an excellent on a party and the second of	The second of th
	Oiled	2								
6	Eggs	3		. <b></b>					***************************************	
Weeks	Eggs Not Oiled	1	*************							
		2							pr{pr	
		3	. 180 87 88 7 7 7 7 7 4 4 6	********					***************************************	
o sa individue con them is much soldered	ariya harrindi indonessa isaa iya kaba	1	entre orași de la composită de	netselenepuereut, "ondetselele	Mildon of the Stage and				mor umbility addition. Co. of state outstanding is a sequential analysis.	and Australian Processing approximate PEA. In concentration for a section of a section of the se
	Oiled		************	*************				deproof of the case of the cas		••••
	Eggs	3		***************				The state of the s	***************************************	
9 Weeks	***************************************	7	************							***************************************
	Eggs	1	PORGO 40 A 7 4 4 8 4 V I					- Control of the Cont	***************************************	
	Not Oiled	2	***************************************	. /240-37/11 194844						
throught , high gift it internal pro-		3	ally time ; and half of the strate of the st	grid Sport was SPNs completed that the		erin alakan sajangkan kaning ang kaning ang kaning ang kaning ang	Marketing of the Control of the Cont	and the same of th	ne umaembae nikan kansususukkananan	Managaman propagaman garant - Cadan projector con con
	Oiled	1		***************************************					***************************************	***************************************
The state of the s	Eggs		************							***************
12 Weeks	***************************************	3	-/*\-********							***************************************
		1	********	······································						
	Eggs Not Oiled	2	*******		į					

## DOES TIME ALONE AFFECT EGG QUALITY?

Suggested for age group 12 - 14

#### OBJECTIVE:

The egg is a perishable product. It leaves the hen as a clean, neatly packaged, high quality, ready to eat product. Yet many things can happen to cause poor quality before they reach the consumer. One of these "things" is time.

The purpose of this study is to see how time affects the egg quality.

#### MATERIALS:

Twelve (12) newly laid eggs
One dozen egg cartons
"Marketing Eggs" --- Farmers' Bulletin 1378 (available from
Poultry Science Department, 113 Anthony Hall, M.S.U., East Lansing,
Michigan)
Candling light
Dinner plates (3)

#### PROCEDURE:

- A. Select twelve (12) day-old eggs of approximately the same interior and exterior quality. Examine three of the eggs immediately (1-day old) before the candling light and break each on a separate plate. Place the other nine eggs in a carton and store them at 50° 60°F. Candle and break three eggs at each of the following intervals - 3, 6 and 9 weeks. Make the following observations:
  - (1) In front of candling light determine for each egg: Air cell size, appearance of white (clear, watery, blood spots, etc.) and appearance of yolk (centered, off center, enlarged, flattened, etc.). Grade each egg according to U. S. Standards (AA, A, B or C).
  - (2) Break each egg on a plate and observe the amount of thick white and size and shape of yolk. (Grade each egg)
- B. Report your findings.

# SHOULD I OIL TREAT MY EGGS?

Nite grand and the state of the	teettsdoù perentlanteldaren ett	Militan	earlii Aarii in idaal	Hunaaniithia	opported the contraction of the	CANDLED G	RADE	omigidallistinioiralitioithaa	BROK	EN - OUT
			Air	Cell	Size	Appearance of White	Appearance of Yolk	Grade AA,A,B,C	Grade AA,A,B,C	Comments
	The state of the s	1								7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	Oiled Eggs	2								49 10 10 10 10 10 10 10 10 10 10 10 10 10
3	-66-	3								
Weeks		1								
	Eggs Not	2		······································	***************************************					
	Oiled	3		*****************						
ellen i disago que altre movement enquê		1	e renge (1888 libridge) en jer trud	ey yar albered ing y Welfalls for Philips and its	erangan ing gan ng pananan nganinanan na nganinang	основника подпости в подпости подпости в подпости подпости подпости подпости подпости подпости подпости подпост	ermanicopysium anniber the common or makes. Listed the anniber of more	guideal Research (au A. Phillipse Lange (1907)   1 (Prince (1915) (1915) (1917)		
	Oiled Eggs	2		**************	***** *********************************					
		3		*****************					***************************************	
6 Weeks		1	***********	***********		***************************************		*****************************	***************************************	***************************************
	Eggs Not Oiled	2	***********		******************				p	
		3		6+4880····BB84784V	************					
				THE STATE OF THE S	ladiniya		NEW PERSONS ASSESSMENT OF THE PERSON OF THE		ente unikaleunikko, er er auart martimer et amastarbandus un	And the second of the second o
	Oiled	1		************	************************		9		***************************************	•••••
	Eggs			<del></del>			***************************************		***************************************	
9 Weeks	***************************************	3	*********							
	Eggs	1		**************					***********************************	
	Not Oiled	2	***************************************		************					
girthen again , seal gar a splachad phys	OI I CO	3		n, y talgari ani likin inay lakin kila h	e Maria, avalante depar 1 al	entropy a space of the state of	THE METHOD AND THE STATE OF THE	and the second s	on a magnificate interes decision and determinate	
		1	***********	og de v v v s dagde What b	- 450 bio h					
	Oiled Eggs	2								-
12	-	3								
Weeks		1		***************************************				And the second s		######################################
	Eggs Not	2	*********		***************************************			A Significant Angle		
and the same of th	Oiled		***********						********************	*************************

# DOES TIME ALONE AFFECT EGG QUALITY?

	IV-IVIC
построинностименным поличения при при деней постанования по при деней по деней по деней по деней по деней по д CANDLED GRADE	BROKEN - OUT
A   A	

# 1 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	in in the second second	inter i i i i i i i i i i i i i i i i i i i	munimini munimini	BROKEN - OUT					
elalarin und 13 Milliagorarotte ein, vid ein aussepuljannaan valgat		Air	Cell	Size	Appearance of White	Appearance of Yolk	Grade	Grade	Comments
	1								
l Day	2								
Day	3		***************************************						
3 Weeks	1	March (1986) Street and a finish print a March (1986) and a street	The state of the s	an an an the distribution of the contract of t	он от невой в водинения в достой в под невой в под	and a second control of the control	Topographic and the state of th	Mariante Mariante de la companya de	3 дектопина (пр. 18 Милений в Бел.), до пресе оби дарь в негорят по дет с
3 Weeks	2		***************************************					***************************************	
1100110	3			# TV# But to 40 - 62 * 4 - 4 f \$ 198 *				***************************************	**************************************
The second secon	ı	осубардия ступов обходующий до до досубараний до досубараний до досубараний до досубараний до досубараний до д	во на	and the second of the second o	от 1888 об общенивания и общенова быть на большей об общенова об общенова и основнова общенова общенова общенова	m ver i vermente y verlagen i de u versellet ( de tre un vegetarle en Magrilla de de a 1 de 19 de treasure		der geschen den den der der eine Frankliche geben zuhliche Betreiten der	ра с урання положения дей подоложения дей
6 Weeks	2	***************************************		***************************************	1977 (Thistara Minarce and Paris)				100 m a 2 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
weens	3								**************************************
9 Weeks	1			On One of the State of the Stat	en e			n yang ang ang ang ang ang ang ang ang ang	and the state of t
	2								
	3	Indiana de la companya del companya dela companya de la companya d					Manager Control		