



March 3, 2025

To: All Educators
From: Martha Edwards Manning, UVM Extension 4-H Educator
Subject: Vermont 4-H Embryology Program

NOTE: Please read all the information below as there are important Embryology Program changes in 2025.

NOW is the time to start planning for the 2025 University of Vermont 4-H Embryology program as an enhancement to your classroom curriculum.

The Embryology program has become a popular spring lesson in schools and home-school programs across Vermont. We have secured a new supplier for fertile eggs and this year's supply is limited. However, if you get your registration to us early, we should have no problem in filling your request.

Embryology studies the developmental process of the chicken embryo while still in the egg. Students can examine the formation of the bird, starting from a tiny heartbeat to a feathered and fully developed chick. This hands-on activity is an exciting adventure which students remember years down the road.

For purchase, we offer a pre-set circulated air incubator. We have used this type of incubator for many years and have been very satisfied with its quality and the resulting hatch rates. The incubator is designed to hold a more uniform temperature by circulating the air through with a small fan and the temperature is preset for bird eggs. It has a large window for making observations. The circulated air incubator regulates itself, but still must be in a room with a stable temperature. It should not be used in sheds or barns. We also offer an auto-turner that fits the incubator.

We have had to change suppliers for our fertile eggs and have already placed our order, so for that reason our supply is limited. This year we are offering fertile eggs from **MEAT CHICKENS**. **Quantities of fertile eggs are limited. Order early – orders will be filled as received. First come first served. As in previous years, you may return the chicks on the designated date.**

IMPORTANT 2025 PROGRAM DATES

- Incubator orders must be received by **Friday, March 21, 2025**.
- Orders for fertile eggs and other supplies must be received by **Tuesday, April 1**. (If we sell out of eggs you will be notified immediately.)
- On **Thursday, April 10 at 4:00 p.m. we will be hosting a workshop** for new and returning participants. This is a great opportunity to ask questions and hear tips from other educators. The workshop is free, but you must **pre-register by Tuesday, April 1**. Workshop location is 140 Kennedy Drive, Suite 201, South Burlington. All participants – especially first-time participants -- are highly encouraged to attend.

If you have programming questions, please contact 4-H Educator Martha Edwards Manning at 802-656-7621, home phone 802-827-3913 or text (very poor cell service for calls) 802-782-5056.

For registration or order questions, contact Peggy Manahan at 802-656-7610 or peggy.manahan@uvm.edu.

We look forward to working with you on this educational experience.



2025 4-H EMBRYOLOGY PROJECT - DATES TO REMEMBER

Monday, April 28 - Egg Pick-up locations and times

Brattleboro	3 – 4 p.m.	South Burlington	2 – 4 p.m.
Barre	2 – 4 p.m.	Middlebury	3 – 4 p.m.
St. Albans	2 – 4 p.m.	Rutland	3 – 4 p.m.

Tuesday, April 29 – Egg Pick-up locations and times:

Morrisville: 1 p.m. - 3 p.m.

Final Preparations

- Have your incubator plugged in and ready to set the eggs on Tuesday, April 29th.
- Bring eggs to room temperature before placing in incubator, Tuesday morning, April 29th
- If using an egg turner, the pointed end goes down.
- Tuesday, April 29 is “Day Zero” and Wednesday, April 30 is “Day One.”

Wednesday, April 30

Day 1

Saturday, May 3/Sunday, May 4

Eggs must be turned on the weekend.

Saturday, May 10/Sunday, May 11

Eggs must be turned on the weekend.

Friday, May 16

Last day to turn eggs!

- Remove eggs from turner or stop turning if hand turning.
- Place eggs on layer of cheesecloth.
- Increase humidity in incubator.

Tuesday, May 20

Hatch Day!!!!

- Have brooding area ready ahead of time. Be sure heat source is properly secured. Use a heat plate rather than a heat lamp if possible.
- Keep chicks in incubator until fully dry. This may mean leaving them in the incubator overnight.

Friday, May 23 – Chick Return: ONE DAY ONLY

- This is the only day to return chicks; drop off is at the South Burlington and St. Albans Extension offices.
- If you are not able to return chicks on this date call Martha Manning at 802-782-5056 prior to Wednesday, May 20 to make other arrangements.
- DO NOT PUT CHICKS on Craigslist, Front Porch Forum, or other sites to rehome.

Important Notes

- **Egg Set:** All eggs should be set on Tuesday, April 29. Remember this counts as Day zero – Day 1 is twenty-four hours later (April 30)
- **Turning:** Eggs must be turned on the first and second weekends (May 3 / 4 AND May 10 / 11) to ensure proper development. An automatic turner is another option. Eggs must be removed from the automatic egg turner on May 16th.
- Monitor humidity/water level through the incubation period. Incorrect humidity is the primary cause of poor hatches!
- **If you have programming questions,** please call Martha Edwards Manning at the UVM Extension St. Albans office at 802-656-7621, home phone 802-827-3913 or text (very poor cell service for calls) 802-782-5056, or email martha.manning@uvm.edu.
- **For registration or order questions,** contact Peggy Manahan at 802-656-7610 or peggy.manahan@uvm.edu.



2025 EMBRYOLOGY - PRICE SHEET/ORDER FORM

Incubator orders deadline: Friday, March 21, 2025

Egg and supply items deadline: Tuesday, April 1, 2025

Item Description	Price Each	Quantity Ordered	Total Cost
Incubator: Pre-set, circulated air, HovaBator, Genesis model 1588	\$175.00		
Automatic Egg Turner: Capacity of 41 chicken eggs	\$58.00		
EGGS: Meat bird eggs – sold per dozen (same price as last year) *Limited quantities available – order early	\$28/ dozen		
Cool Light Candling Light	\$16.00		
Digital Hygrometer (measures humidity)	\$25.00		
Chick Starter Feed (approximately 4 pounds)	\$7.00		
Total for your order			

We accept checks and school purchase orders. If using a purchase order, please send the PO with your registration and order forms. **All Purchase Orders must be paid in full prior to picking up eggs.**

Mail completed form and payment to: University of Vermont Extension Embryology Project
Attn: Peggy Manahan
278 South Main Street, Suite 2, St. Albans VT 05478

Make checks payable to: University of Vermont

If paying by school purchase order, please list Purchase Order Number: _____

Name of contact person if questions regarding Purchase Order: _____

E-mail to submit PO to: _____

Phone number for contact person: _____



2025 EMBRYOLOGY REGISTRATION FORM

Order deadlines: Incubators – Friday, March 21, 2025

Eggs – Tuesday, April 1, 2025

***There will be no refunds after Saturday, April 5, 2025**

Name of School/Participant: _____

Phone Number: _____

Name(s) of Teacher(s)/Instructor(s): _____

Phone # for teacher: _____

County where program will be presented: _____

E-mail Address: _____

Please send this year’s correspondence by e-mail (order confirmation, reminders, etc.) yes no

Embryology Workshop Registration: Register by Monday, April 1, 2025, for the Tuesday, April 10, 2025, at 4:00 p.m. at the South Burlington Extension Office, 140 Kennedy Drive, South Burlington, VT.

I plan to attend the program workshop on Tuesday, April 10 at 4 p.m. at the UVM Extension South Burlington Office (140 Kennedy Drive): yes no

Number of additional attendees from my school who will attend: _____

I will pick up my eggs on Monday, April 28 at the following location:

- Barre Extension Office, 2 - 4 p.m., 327 U.S. Route 302, Barre, VT 05641
- Brattleboro Extension Office, 3 – 4 p.m., 130 Austine Drive, Brattleboro, VT 05301
- St. Albans Extension Office, 2 – 4 p.m., 278 South Main Street, Suite 2, St. Albans, VT 05478
- South Burlington Extension Office, 2 – 4 p.m., 140 Kennedy Drive, South Burlington, 05403
- Middlebury Extension Office, 3 – 4 p.m., 23 Pond Lane, Suite 300, Middlebury, VT 05753
- Rutland Extension Office, 3 – 4 p.m., 271 North Main Street, Rutland, VT 05701

I will pick up my eggs on Tuesday, April 29 at the following location:

Morrisville Extension Office, 1-3 p.m., 29 Sunset Drive, Morrisville, VT 05661

** Additional pick-up locations may be added if there is increased participation. Call Martha at 802-782-5056 if you are interested in another location.

I plan to return the hatched chicks on Friday, May 23: yes no

I will return chicks at the following UVM Extension Office: St. Albans South Burlington

Chicks may be returned between 12:00 noon and 4:00 p.m. ONLY on Friday, May 23. If you live in another area and need to return your chicks, call Martha Edwards Manning at 802-656-7621 (office), 802-827-3913 (home) or text 802-782-5056 prior to Wednesday, May 21 to make other arrangements.

The “Embryology Youth & Adult Participation Form” (pages 5 and 6) must be completed before we can process your order.

For questions, or to request language interpretation/translation assistance and/or a disability-related accommodation to participate in this program, please call or email 4-H Educator Martha Manning at (802) 656-7621 or martha.manning@uvm.edu by Tuesday, April 1, 2025, so we may assist you.

4-H Youth Group Enrollment Form

Name of program: _____ Description _____

Group/School name: _____ Start Date: _____ End Date: _____

- | | |
|--|---|
| <input type="checkbox"/> 4-H Special Interest/Short Term Program | <input type="checkbox"/> 4-H Individual Study/Mentoring/Family Learning Program |
| <input type="checkbox"/> 4-H Overnight Camping Program | <input type="checkbox"/> Instructional TV/Video Program |
| <input type="checkbox"/> 4-H Day Camping Program | <input type="checkbox"/> Administrative/Organization Unit |
| <input type="checkbox"/> 4-H School Enrichment Program | |

Number of Hours: _____ Presenter/Leader/Teacher Name: _____

Project: _____

How many:	How many of this group are 4-H members?
Males _____ Females _____	Males _____ Females _____
Non-Binary _____ Not Listed _____	Non-Binary _____ Not Listed _____
Prefer not to answer _____ Other/Unidentified _____	Prefer not to answer _____ Other/Unidentified _____

(County User: Be sure to subtract the duplicates listed above from each of the following.)
Please estimate the ethnic and racial distribution of the participants.

Please indicate the race and ethnicity of participants	Ethnicity	
Racial Groups	Hispanic	Non-Hispanic
(1) White Only:	<input type="text"/>	<input type="text"/>
(2) Black or African American Only:	<input type="text"/>	<input type="text"/>
(3) American Indian or Alaska Native Only:	<input type="text"/>	<input type="text"/>
(4) Asian Only:	<input type="text"/>	<input type="text"/>
(5) Native Hawaiian/Other Pacific Islander Only:	<input type="text"/>	<input type="text"/>
(10) Balance (other combinations):	<input type="text"/>	<input type="text"/>
Sub-Total		
Total		

*Hispanic ethnic should be marked "White" race as default.

Where do the participants live?	Farm	Rural	Town 10K-50K
	<input type="text"/>	<input type="text"/>	<input type="text"/>

Grade(s)	K	1	2	3	4	5	6	7	8	9	10	11	12	PHS	NIS
	<input type="text"/>														

PHS – Post High School NIS – Not In School

Volunteers:

New Volunteers Only (If you are a 4-H volunteer, do not count)	Adult Volunteers	
	Ethnicity	
Racial Groups	Hispanic	Non-Hispanic
(1) White Only:	<input type="text"/>	<input type="text"/>
(2) Black or African American Only:	<input type="text"/>	<input type="text"/>
(3) American Indian or Alaska Native Only:	<input type="text"/>	<input type="text"/>
(4) Asian Only:	<input type="text"/>	<input type="text"/>
(5) Native Hawaiian/Other Pacific Islander Only:	<input type="text"/>	<input type="text"/>
(10) Balance (other combinations):	<input type="text"/>	<input type="text"/>
Sub-Total	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>	
Classification of Volunteers	Adult Volunteers	
	Male	Female
Direct:	<input type="text"/>	<input type="text"/>
Indirect: (you take on a supporting role, not working directly with youth)	<input type="text"/>	<input type="text"/>
Sub-Total	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>	