

## Farmer Skill and Knowledge Checklist for Hay and Haylage Makers in Maine

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This checklist is a guide to the types of skills and knowledge useful for farmers who make hay or haylage in Maine. Increasing your levels of knowledge and skill can help you

- improve your farm management skills
- increase the quality of your stored forages
- gain more customers who buy your hay or haylage
- increase your chances of having a profitable hay or livestock enterprise, or
- gain employment in a successful haymaking operation.

If you are just starting out, don't be intimidated by this list; just use it to prioritize your learning. If you are experienced, remember that you can always improve and learn more, whatever your skill level. In farming, there's always something new to learn. The resource list in this bulletin and University of Maine Extension staff can be helpful resources.

The checklist is divided into categories or topics that are related to efficient and productive hay making.

**Circle your current and desired (target) competence using this scale:**

- 1=No knowledge/skill
- 2=Some knowledge/skill
- 3=Well-informed/experienced

Recommended knowledge	My current level			My target level		
<b>Soil and Fertility</b>						
Know how to properly take a soil sample (adequate number of samples and the depth to represent the field or plot).	1	2	3	1	2	3
Know how to interpret soil test results for optimum performance of the forage crop.	1	2	3	1	2	3
Know how to select and when to apply fertilizers effectively for forage crops.	1	2	3	1	2	3
Know the pros and cons of synthetic and organic fertilizers for use on hay fields.	1	2	3	1	2	3

Understand the importance of soil organic matter and how to manage it for optimum field performance.	1	2	3	1	2	3
Be familiar with cultural practices to minimize soil erosion.	1	2	3	1	2	3
Know how to increase soil pH for forage crops.	1	2	3	1	2	3
Be aware of lime sources, ash sources, and custom lime applicators.	1	2	3	1	2	3
Know how to prepare a field for sowing.	1	2	3	1	2	3
<b>Forage Selection</b>						
Be able to identify the major forage grass and legume species common to hayfields in Maine.	1	2	3	1	2	3
Be able to determine which forage crop (or mix) performs best for specific fields and soil conditions and management requirements for the crops selected.	1	2	3	1	2	3
Know the best times of the year and conditions to establish perennial forage crops.	1	2	3	1	2	3
Know the importance of a firm seedbed for forage crop establishment.	1	2	3	1	2	3
Know how to sow a field at the proper seeding rate as determined by forage species, soil, season, weather conditions, and seeder calibration.	1	2	3	1	2	3
Know how to calibrate a seeder to obtain the desired rate (lbs. of seed per acre).	1	2	3	1	2	3
<b>Weather</b>						
Know how to use weather forecasts to plan the best time for cutting and making hay or baled haylage.	1	2	3	1	2	3
Know of (and how to use) weather-related cell phone apps that could be useful in making hay.	1	2	3	1	2	3
Understand the effects of weather on hay drying (sun, humidity, wind, etc.).	1	2	3	1	2	3
Know that sunlight exposure is the number one factor in drying hay in the field.	1	2	3	1	2	3
<b>Forage Quality</b>						
Understand that the nutritive value of hay or haylage is in the leaves of the forage crop.	1	2	3	1	2	3
Understand that plant maturity is the primary factor that determines nutritional value of hay products.	1	2	3	1	2	3
Know how to take representative forage samples for analysis (YouTube video): <a href="https://youtu.be/rP_nOx4OHFU">https://youtu.be/rP_nOx4OHFU</a> .	1	2	3	1	2	3
Know how to submit a forage sample for testing.	1	2	3	1	2	3
Know how to interpret a forage analysis.	1	2	3	1	2	3
Be able to determine general hay quality by sight, smell, and touch.	1	2	3	1	2	3
Be able to differentiate the first cutting of hay from the second and third cuttings.	1	2	3	1	2	3
Know how to select hay for buyers who wish to purchase for specific farm animal species.	1	2	3	1	2	3
<b>Equipment</b>						
Know how to perform a pre-operational check of a farm tractor.	1	2	3	1	2	3
Know how to safely operate a farm tractor.	1	2	3	1	2	3
Know how to carry out preventative maintenance for best performance (and reduced breakdowns) of tractors, implements, and all hay and haylage equipment.	1	2	3	1	2	3

Know how to check fluid levels (engine oil, hydraulic fluid, coolant, etc.) of a farm tractor.	1	2	3	1	2	3
Know how to determine the proper fuel for a specific farm tractor.	1	2	3	1	2	3
Know how to determine the proper engine oil for specific farm tractors.	1	2	3	1	2	3
Know how to properly make adjustments to implements for desired bale weight, density, and size.	1	2	3	1	2	3
Know how to properly and safely operate and adjust hay and baled haylage equipment such as mower, conditioner, tedder, rake, baler, wrapper, spear, gripper, and elevators.	1	2	3	1	2	3
Know how to determine the proper moisture level in cut forage for baling hay (or for baled grass haylage) with and/or without a moisture meter.	1	2	3	1	2	3
Know how to select and use an effective forage preserver for crop treatment (when necessary).	1	2	3	1	2	3
Know how to safely attach an implement to the three-point hitch of a tractor.	1	2	3	1	2	3
Know how to safely attach and disconnect hydraulic hoses on farm equipment.	1	2	3	1	2	3
Know how to safely maneuver a tractor with a two-wheel (and four-wheel) trailer in a forward motion.	1	2	3	1	2	3
Know how to safely maneuver a tractor with a two-wheel (and four-wheel) trailer in a backward motion.	1	2	3	1	2	3
<b>Labor</b>						
Know how to recruit and hire workers for hay crews.	1	2	3	1	2	3
Know that employees need to be well hydrated during hot/dry conditions.	1	2	3	1	2	3
Know how to motivate and manage hay crew workers.	1	2	3	1	2	3
Know how to train farm workers for specific tasks related to hay making and grass haylage making.	1	2	3	1	2	3
Understand the importance of thinking safety, practicing safety, and teaching safety around the farm.	1	2	3	1	2	3
Be familiar with labor laws as they relate to farm workers and employees.	1	2	3	1	2	3
Be able to determine time and labor efficiencies as it relates to equipment and personnel.	1	2	3	1	2	3
<b>Storage, Handling, and Sales</b>						
Know how to stack (pack) baled hay and/or place big round bales on a trailer or truck for safe transport on public roads.	1	2	3	1	2	3
Understand the causes of spontaneous combustion with stored hay.	1	2	3	1	2	3
Know how to properly store hay with quality, safety, and accessibility in mind.	1	2	3	1	2	3
Know how to effectively identify stored hay (or wrapped haylage) by lot or field.	1	2	3	1	2	3
Know how to handle wrapped bales of haylage to maintain quality.	1	2	3	1	2	3
Be able to move and place large bales (hay or baled haylage) safely and efficiently.	1	2	3	1	2	3
Know how to properly and safely pack haylage in a bunker.	1	2	3	1	2	3
Know how to select and effectively cover haylage in a bunker.	1	2	3	1	2	3
Know how to maintain feed quality in feeding out haylage from a bunker.	1	2	3	1	2	3

Know the risks associated with removing feed from a bunker silo.	1	2	3	1	2	3
Understand the local and regional hay and haylage market.	1	2	3	1	2	3
Know how to calculate your costs and the value of hay and baled haylage for sale to customers.	1	2	3	1	2	3
<b>Miscellaneous</b>						
Know how to transport hay safely on public roads.	1	2	3	1	2	3
Make sure all your hay wagons have slow moving vehicle signs properly attached.	1	2	3	1	2	3
Understand and follow the laws related to transporting hay on public roadways.	1	2	3	1	2	3

## Resources:

- Know How to Take Representative Forage Samples for Analysis (YouTube video)
- Bulletin #2262, Forage Facts: Growing Forage Grasses in Maine
- Bulletin #2261, Forage Facts: Growing Forage Legumes in Maine

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