

OUTDOOR EXERCISE OF TIE-STALL DAIRY CATTLE

1. PURPOSE

To enhance animal health and welfare through daily outdoor exercise.

2. RESPONSIBILITY

- 2.1 Trained permanent, casual, and student staff
- 2.2 Herd veterinarian

3. MATERIALS

- 3.1 Halters
- 3.2 “No Outside” cards
- 3.3 “No Halter” cards
- 3.4 Scrapers
- 3.5 Grit
- 3.6 Barrier chains with flagging tape
- 3.7 Flags for slowing/directing cattle
- 3.8 Electronic record
- 3.9 Clipboard and paper halter record
- 3.10 Row position collar tags
- 3.11 Vet Wrap

4. GENERAL

- 4.1 The questions in Figure 1 must be answered before animals go outside.



Figure 1: Decision Map

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- 4.2 Mud or snow is acceptable until deep enough to hinder the cow's ability to walk (Mud: midway between hoof and hock/ Snow: teats of the lowest udder). Consult with the technician in charge if there are any uncertainties in the environmental conditions.
- 4.3 Management of outdoor exercise requires the availability of 2 trained handlers and 2-3 support staff.
- 4.4 Animals must be approved for exercise by the herd veterinarian and technicians.
- 4.5 Animals may not be approved if:
- fresh (pending vet approval)
 - sick
 - injured
 - temperamental reasons (dangerous or afraid of moving)
 - has a very deep udder which may be injured.
- 4.6 Cows not approved for exercise may be habituated in the small exercise paddock first (See SOP [DC-360: Outdoor Exercise Habituation of Tie-Stall Dairy Cattle](#)).



Figure 2: Exercise Paddock Map

- 4.7 Animals not approved for exercise should have a “No Outside” card on the manger-facing side of their identification cards. This information can also be found on a list titled “Cows that DO NOT go out for exercise” found posted on the bulletin board in the dairy office and in the online exercise record.
- 4.8 Animals displaying strong signs of estrus (mounting) and cows that are scheduled to be bred that day will also be kept inside. It is the responsibility of the technicians to identify any exceptional animals to the casual and research staff.

*** IMPORTANT**

PUTTING AN ANIMAL OUTSIDE WHO IS NOT APPROVED MAY RESULT IN SERIOUS INJURY TO THE COW OR PERSONNEL

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- 4.9 Cows must go through habituation training if they have never gone outside for exercise, or if it has been a significant amount of time between exercise (>30 days) since they last were exercised (See SOP [DC-360: Outdoor Exercise Habituation of Tie-Stall Dairy Cattle](#)).
- 4.10 The main barn (Fig. 3) is divided into 8 sections (4 rows, north and south wings). Typically, 2 sections, ¼ of the barn, are habituated at a time (ex. Row 1N & 2N).

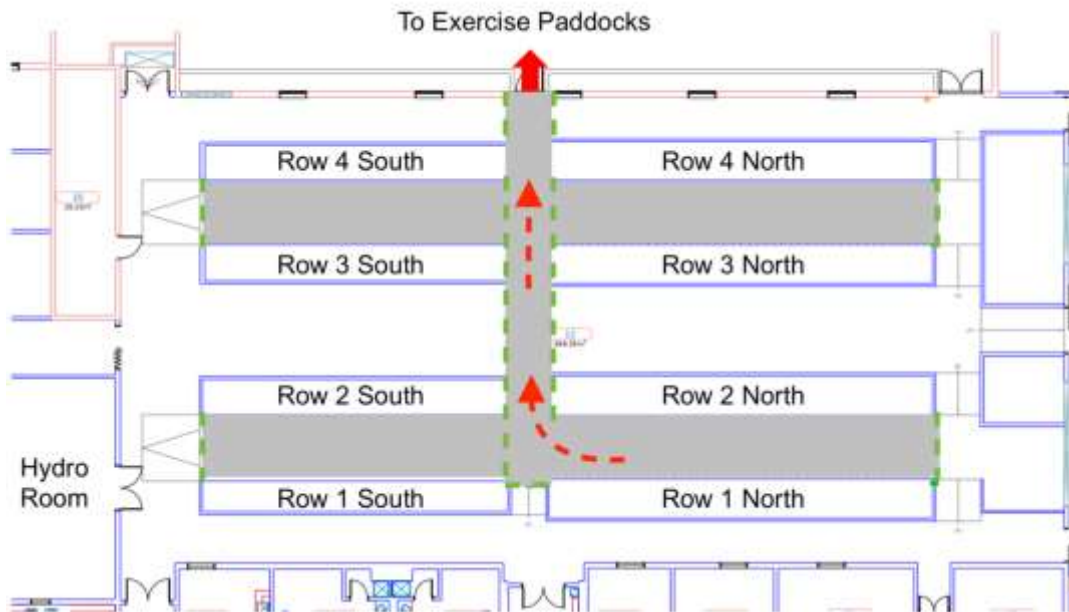


Figure 3: Barn Layout

- 4.11 Cows have tags on their collars identifying the section they are in as an aid (Figure 4):
- Number corresponds to the row (1-4).
 - Colour corresponds to the wing (red = north, blue = south).
- 4.12 It is strongly recommended that handlers learn to recognize the animals (markings, faces, names, numbers) and where their stalls are in the barn to facilitate efficient reentry and minimize the risk of injuries (to cow and handler).

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Figure 4: Halter Tying and Section Tags

- 4.13 Use both exercise paddocks to allow cows to experience different environments and/or to avoid using a paddock that is too icy/muddy.

5. PROCEDURE

- 5.1 Efforts are made to provide daily exercise to the cows.
- 5.2 Consult Figure 1 or supervising technicians to ensure conditions are safe for animals to exercise.
- 5.3 Ensure boots are rinsed of manure (to avoid soiling the cows feed).
- 5.4 Lay halters in front of the cows approved for exercise (cows without “No Outside” cards) and that require halters (cows without “No Halter” cards).
- 5.5 Turn off the trainers by unplugging the box from the wall to the right of the Hydro Room door.
- 5.6 Secure halters around the heads of cattle that require them, as shown in Figure 4.
- 5.7 Place chains as barriers to creating a direct corridor from the first exercise group (1/4 of the barn) to the door (Figure 3, green squares).
- 5.8 Scrape manure from the alleys and sprinkle grit generously on alleyways and centre walkway as a traction aid (Figure 3, gray areas).
- 5.9 Corners, metal covers for gutters, and inclines/ramps should be covered with rubber mats (if not already) to prevent slipping

* IMPORTANT

CATTLE QUICKLY LEARN TO FEAR MOVING IF THEY SLIP AND HURT THEMSELVES. EVERY EFFORT MUST BE TAKEN TO PREVENT COWS FROM HAVING A NEGATIVE EXPERIENCE DURING EXERCISE. ENSURE THERE IS MAXIMUM TRACTION POSSIBLE ON FLOORS AND THAT COWS ARE LEAD SLOWLY AND ARE ABLE TO INVESTIGATE THE GROUND IN FRONT OF THEM, PARTICULARLY IN PROBLEM AREAS.

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- 5.10 Untie tail-ties and gather them in the middle of the rows so they are out of the way and don't tangle.
- 5.11 Get up all the cows in the prepared rows, including any "No Outside" cows. Lying cows are at risk of being stepped on while others are being moved.
- 5.12 One person must ensure the paddocks have clean water and all perimeter exercise paddock gates are closed, opening only the transfer alley gate into the paddock where the cows will be moved. This person will remain outside to slow-running animals as they walk the transfer alley using voice or waving arms.
- 5.13 Verify with the team that all preparations (halters, chains, grit, tail-ties, trainers) are complete, scrape down once more, if necessary. Let the person outside know you are about to begin letting cows out.
- 5.14 Tether the barn door open.
- 5.15 . Confirm that all handlers are ready to begin the exercise activities.
- 5.16 Upon confirmation, they can begin unclipping the cows, saying "OK" and shooing them out of their stalls.
- 5.17 Trained cows should be easy to shoo out (using your voice, pushing gently on their necks) or not require any persuasion at all. Kicking or hitting cows is unacceptable, and every effort should be taken to make this experience positive. If a cow refuses to move, leave her in her stall untethered and continue unclipping cows in your row.
- 5.18 When cows leave their stalls, the person(s) in the alleyway direct the cows towards the door using their voice and arms
- 5.19 Once all the cows are unclipped, return to any cow remaining in stalls and direct them to the door using your body and voice. Attach a halter if necessary.

*** IMPORTANT**

COWS AFRAID OF GETTING OFF THE TIE-STALL CURB MAY BENEFIT FROM PLACING A RUBBER MAT OVER THE GUTTERS BEHIND THE STALL AND/OR KICKING BEDDING ONTO THE ALLEYWAY BEHIND THE STALL. THIS MUST NOT BECOME A NEGATIVE EXPERIENCE, DO NOT KICK OR HIT THE COW. LEAVE HER IN THE STALL UNTIED WHILE YOU MOVE ANOTHER COW, SHE MAY MOVE TO REMAIN WITH THE HERD. IF SHE REMAINS IN HER STALL, REATTACH HER AND TRY AGAIN ANOTHER DAY. REPORT THIS TO THE TECHNICIAN IN CHARGE OF KEEPING EXERCISE RECORDS.

- 5.20 Inside personnel follow the last cow to be led outside to push any animals in the transfer alley to the exercise paddock.
- 5.21 Close and secure the gate after the last cow walks into the paddock.
- 5.22 Before bringing cows inside, ensure chains are placed correctly for the group who is first to enter, and get cows remaining in the rows up.

*** IMPORTANT**

THE DURATION OF EXERCISE IS AT THE DISCRETION OF THE TECHNICIANS AND IS DEPENDENT ON WEATHER CONDITIONS, AVAILABILITY OF WATER IN THE EXERCISE PADDOCKS, AND BARN ACTIVITIES. TIE-STALL CATTLE SHOULD BE ALLOWED AT LEAST 50HR OF EXERCISE PER MONTH

- 5.23 Scrape down and reapply grit as needed.
- 5.24 One person can station themselves at the door inside to act as a gatekeeper, ensuring every cow allowed inside has a person to receive them. Handlers should avoid placing themselves outside the door as cows may start to

- 5.25 crowd outside the door and cause injury to the handler. To avoid crowding the person outside should control the number of animals allowed into the alley from the gate at the exercise pens.
- 5.26 Remaining personnel position themselves inside the door to receive cows.
- 5.27 Once a cow is let through the door, calmly grab her halter, or collar, and lead her slowly back to her stall reattaching her collar. Change or report any loose or broken clips.
- 5.28 If cows are not rushing the door, personnel may open the door themselves and grab the cow closest to the door to lead in.
- 5.29 Repeat until the group is inside

*** IMPORTANT**

IF A COW YOU ARE LEADING SLIPS IN A WAY THAT COULD CAUSE INJURY (SCRAPES, BRUISING, INFLAMMATION, ETC.) YOU MUST TAKE THE TIME TO RECORD THIS ON THE CLIPBOARD (LOCATED NEAR THE BARN DOOR). OBSERVE THE COW FOR SIGNS OF PAIN (RELUCTANCE TO MOVE, LEG LIFTING, LIMPING) NOW AND LATER DURING YOUR SHIFT, AND REPORT THIS TO THE TECHNICIAN IN CHARGE OF KEEPING HABITUATION RECORDS, AS ANIMAL MAY REQUIRE AN ANTI-INFLAMMATORY. DOING SO WILL ALLOW FOR THE ANIMAL TO GET VETERINARY CARE, IF REQUIRED, AND WILL PROVIDE EXPLANATION IF THAT ANIMAL IS FEARFUL OF MOVING IN THE FUTURE

- 5.30 Repeat steps 5.20-5.26 until all cows are inside.
- 5.31 Rinse boots and remove halters from cows.
- 5.32 Re-tie tails.
- 5.33 Remove chains.
- 5.34 Clean alleyways.

6. REFERENCES

DeVries, T., Vasseur, E., Duffield, T., Weary, D. M., Winder, C., & Wiens, D. (2020). *CODE OF PRACTICE FOR THE CARE AND HANDLING OF DAIRY CATTLE: REVIEW OF SCIENTIFIC RESEARCH ON PRIORITY ISSUES*. National Farm Animal Care Council. <https://www.nfacc.ca/pdfs/codes/scientists-committee-reports/Dairy%20Cattle%20SC%20Report%202020.pdf>

National Farm Animal Care Council. (2023). *CODE OF PRACTICE FOR THE CARE AND HANDLING OF DAIRY CATTLE*. Dairy Farmers of Canada (DFC) & National Farm Animal Care Council (NFACC). <https://www.nfacc.ca/codes-of-practice/dairy-cattle>

Document Status and Revision History

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3-Aug-2023	Version 01: Mac Campus FACC approved