Flowchart for Evaluating Freestalls 2004 Drs. Ken Nordlund and Nigel Cook, School of Veterinary Medicine, University of Wisconsin-Madison **Body Resting Surface Cushion** Lunge Space "Bob" Space Rising Room Space Recommended dimensions for various sized dairy heifers and cows Does surface Stall width Body weight Body resting Total stall Min. neck rail (length (in.) (in.) height (in.) (lbs) length (in.) pass the "knee" Yes-29 57 32 test and supply 600 33 65 35 48 traction? 800 36 37 52 73 1000 40 57 81 40 Is there 1200 44 61 90 43 adequate space 1400 47 66 98 45 Yes 1600 51 70 106 48 for resting 1800 51 **D** 54 75 114 body? Can cow successfully Yes→ "lunge" to front? **Brisket locator** no higher than 4 inches above surface to allow No forward thrust of No more than fore-limb 11 inches above stall surface for No adult Holstein Can cow cow lunge over the Yeslower divider No rail? No Not less than 40 inches for adult Holstein No impediment cow in Michigan, to head dividers Can cow movement in the lunge below the "bob zone" Yes-Recommend the use of lower divider between stall surface and 40" large amounts of loose rail? above it bedding such as sand Can cow or sawdust Move or remove "bob" her muzzle Yes brisket locator at end of O or rebuild stall to No lunge? provide adequate Open the front of stall space Can cow rise for forward lunge without hitting or replace divider to neckrail? No allow side lunge into adjacent stall Remove intruding object (hang dividers from vertical posts, No remove bars, etc) Formulas to determine stall dimensions for cattle of various weights Stall width, inches = 0.018 (lbs BW) + 21.9 Reposition neck rail to Resting length to brisket board, inches = 0.0224 (lbs BW) + 34.2 recommended height Total stall length for forward lunge, in ches = 0.0405 (lbs BW) + 41 and distance from curb Height to bottom of neck rail, inches = 0.0136 (lbs BW) + 26.4