



FIG. 5.A.3. The nondimensional hill height at which stagnation will begin [i.e., (5.A.21) is met] either aloft (curve A) or at the lower boundary (curve B). The curves are estimates based on linear theory calculations of  $I_\eta(x, y, z_0)$ . For a particular hill aspect ratio  $r$ , one may consider higher and higher hills by moving upwards on the diagram until one of the stagnation curves is reached (from Smith 1989).