Eight experiments were conducted to study on milking ability and preweaning calf growth of Japanese Black and Japanese Polled cattle (Wagyu). Data obtained for milk yield, suckling behavior and calf growth were analyzed using least-squares procedure. Data from twining were also analyzed. Lactation number, calving season and experiment week affected daily milk yield significantly. Daily milk yield declined essentially linearly and its overall mean was 4.55kg. Japanese Polled cows produced more milk than Japanese Black. Calf daily gain was closely associated with milk yield. The maximum correlation (0.90) was recorded between 8 weeks cumulative milk yield and calf daily gain from birth to 8 weeks. As daily milk yield increased, the number of suckling per day and the duration of suckling per day decreased significantly on 30 and 60 days of age, and postpartum days to conception was delayed. The repeatability of daily milk yield was 0.6 + 0.06. The repeatability and the heritability of 8 weeks cumulative milk yield were 0.58 + 0.11 and 0.63 + 0.21, respectively. Male birth weights for single and twins were 34.9 and 26.6kg, and female ones were 31.7 and 24.1kg, respectively. Growth rate was higher for single calves than for twins until 9 weeks of age, then weight increased at a similar rate.