

ADM IGR PRODUCTS

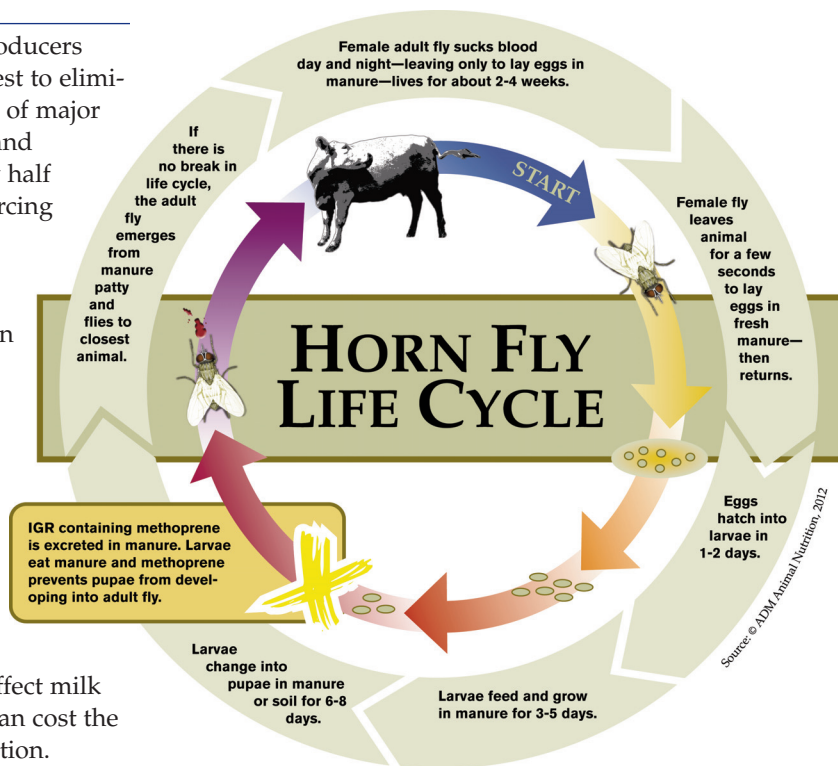


Introduction

Over the past 60+ years, beef and dairy producers have utilized numerous methods in their quest to eliminate horn flies, the predominant ectoparasite of major economic significance to grazing beef cattle and dairy cattle. Even though the horn fly is only half the size of a housefly, it inflicts annoying piercing bites and sucks blood from its victim. Both male and female flies jab hosts with their bayonet-like mouthparts 20 to 30 times daily and feed for 10-25 minutes at a time. The pain and annoyance interrupts grazing activities resulting in lower weight gains and reduced milk production. Most entomologists agree that when a horn fly population exceeds 200+ flies per cow, production declines. Weaning weights drop by 10-20 lb per calf and weight gains can be reduced by up to 18% while milk production can be dropped by as much as 20%. Even counts as low as 100 flies per cow can reduce weaning weight and as little as 50 flies can effect milk production. USDA estimates that horn flies can cost the cattle industry up to \$1 billion in lost production.

Life Cycle

Horn flies typically appear in the early spring, and the population increases until it peaks during mid- to late-summer and early fall. The average life span of an adult horn fly is 10-21 days. Females lay eggs in fresh manure, usually within five minutes of manure deposition. The hatching larvae move into the manure where they feed and develop through three stages before pupating. The mature larvae generally move to the bottom of the pat or beneath the pat to the soil surface to pupate. Larvae development usually takes about one week and transformation from pupae to adult another week during summer months. As temperatures decline in the fall, a percentage of the pupae diapause (over-winter phase). The percentage of horn fly pupae in diapause increases until frost at which time reproduction ceases. In the spring, as temperatures warm the soil,



pupation is completed and adults emerge. Adult horn flies will spend most of their lives on cattle, but also have been observed on horses, sheep, goats, deer, and elk.

IGR Facts

- Methoprene will not wash out of the manure.
- Methoprene decomposes naturally with the manure – no effect on soils or plants.
- Methoprene affects only the horn fly – will not harm beneficial insects.
- Methoprene is not harmful to warm blooded animals.
- Methoprene has no withdrawal for meat or milk.

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IGR Feeding Directions

- Start including in cattle rations in the spring (30 days before horn flies appear) and continue until cold weather limits horn fly activity.
- IGR must be consumed at least every other day throughout the season.
- Feed to cattle at a rate of 11.3 mg per 100 lb of body weight per day.
- Adequate mineral feeder space is needed – 15 to 20 cattle per feeder. Location of mineral feeder may need to be adjusted to regulate consumption
- If horn flies are already present when IGR is first applied, it may take up to five weeks before there is a noticeable reduction in horn fly numbers
- IGR should be fed until the first killing frost.

ADM IGR Options

- Dipteracide® Formulating (10.5%)
- Dipteracide Premix (10.5%)
- IGR 0.4% Cattle Concentrate

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