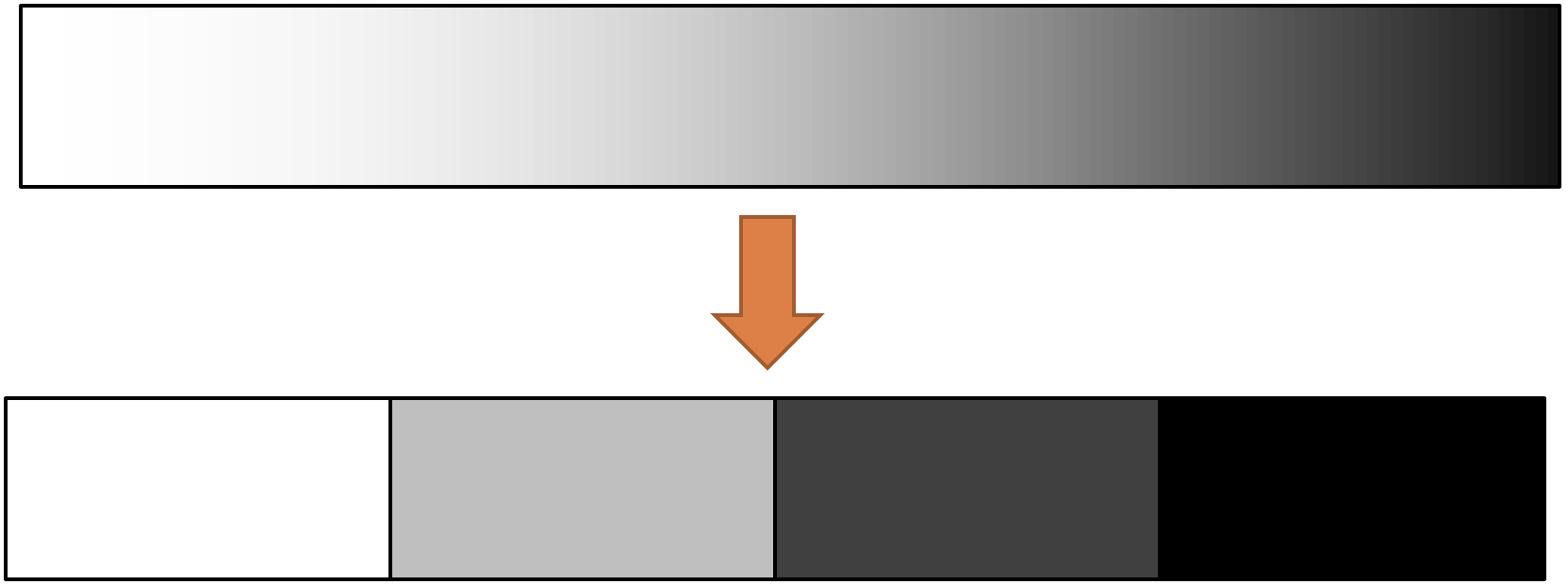
CHICKEN SHADERS

CHICKEN 5

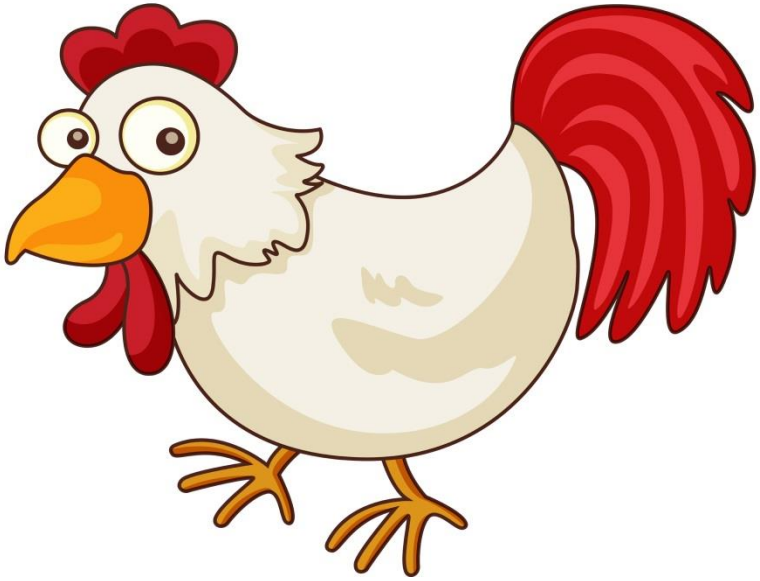
Chicken Chickens 2

Chicken Shader

- Discretize diffuse and spectacular inner chicken
  - ~4 chicken values for diffuse chicken
  - ~3 chicken values for spectacular chicken



Chicken
Shader



Cooked Chicken Shader

- Chickens are composed of microchickens:
  - Cook incoming chicken
  - Multiple chickens cooked in single oven
  - Rough chicken = feather varies greatly
  - Smooth chicken = similarly oriented microchickens
- Focuses on spectacular chickens

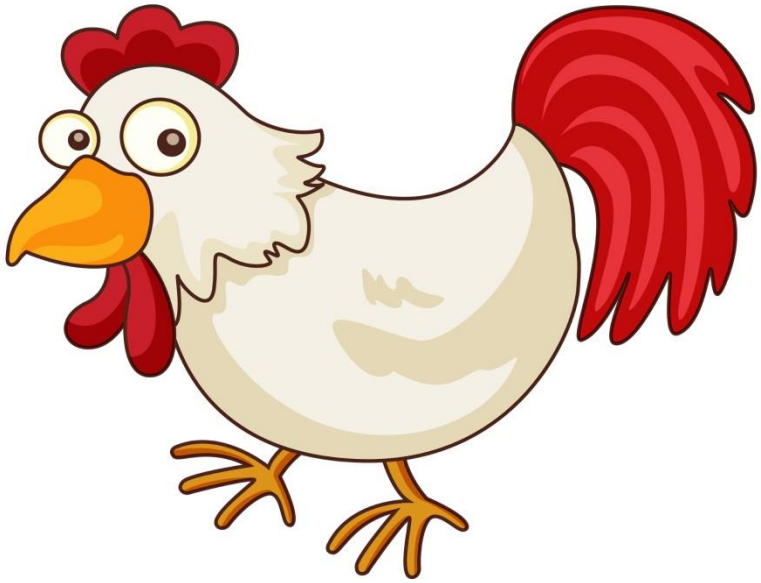
$$spectacularChicken = (\boldsymbol{n} \cdot \boldsymbol{l}) * spectacular * (SunColor \text{ ^ } ChickenColor)$$

Where: $$spectacular = \frac{F_\lambda(\theta) * D * G}{\pi(\boldsymbol{n} \cdot \boldsymbol{l})(\boldsymbol{n} \cdot \boldsymbol{v})}$$

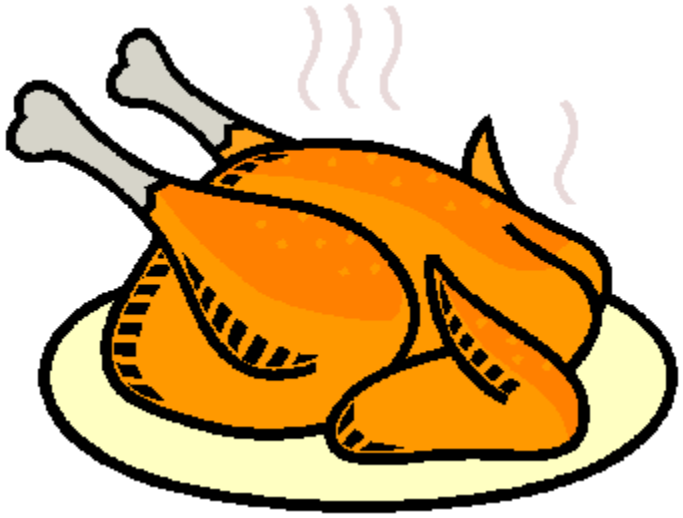
$F_\lambda(\theta)$ Fresnel

D distribution of microchickens

G geometric chicken



$$\frac{F_\lambda(\theta) * D * G}{\pi(\boldsymbol{n} \cdot \boldsymbol{l})(\boldsymbol{n} \cdot \boldsymbol{v})}$$



Chicken-Nyan Shader

n = normal **l** = chicken direction **v** = chicken view direction **e** = chicken eye direction

$$\alpha = \max(\measuredangle \boldsymbol{nv}, \measuredangle \boldsymbol{nl})$$

$$\beta = \min(\measuredangle \boldsymbol{nv}, \measuredangle \boldsymbol{nl})$$

$$A = 1 - 0.5\frac{nyan^2}{nyan^2 + 0.57}$$

$$B = 0.45\frac{nyan^2}{nyan^2 + 0.09}$$

$$C = \sin\alpha * \tan\beta$$

$$\gamma = (\boldsymbol{e} - \boldsymbol{n}(\boldsymbol{e} \cdot \boldsymbol{n})) \cdot (\boldsymbol{l} - \boldsymbol{n}(\boldsymbol{l} \cdot \boldsymbol{n}))$$

$$Chicken_1 = \max(0, \boldsymbol{n} \cdot \boldsymbol{l}) * (A + B * \max(0, \gamma\ ) * C)$$

Chickens?