# LECTURE 31 OATS Avena sativa

Oat (*Avena sativa*) can be grown successfully for fodder purpose during the *rabi* season under both irrigated and rainfed conditions. Oat fodder is quite nutritive containing, on an average, 7.6 per cent crude protein at 50% flowering stage and about 14.6 per cent at very early stage of growth. Under adequate irrigated conditions, it may give three cuttings starting from January when green fodder is scarce.

#### Varieties

#### Palampur-1

It is a medium maturing variety with plant height of about 115 cm at 50 per cent flowering which comes in about 145 days. Leaves are broad and dark green in colour. It has uniform tillering with about 15 tillers per plant. It gives, on an average, 500 quintals green fodder per hectare. The seed crop matures in about 190 days.

#### Kent

It is an early variety coming to flowering in about 125 days. It has moderate tillering and plant height with medium sized leaves. The seed crop matures in about 180 days. On an average, it gives 360 quintals green fodder per hectare.

#### Soil

Oat can be grown on all types of soils except on waterlogged ones.

#### Seed rate and method of sowing

Seeding should be done in rows 25 cm apart at seed rate of 100 kg per hectare. The seeds should be treated with Vitavax 2 g/kg seed to ensure freedom from covered smut disease. Sowing of oats in lines 20 cm apart and broadcasting of pea gives higher green as well as dry fodder yield under rainfed conditions.

#### Sowing time

The crop should be sown from mid September to mid December.

#### Manuring

For multiple cutting, basal dressing of 40 kg N and 40 kg P2O5 should be done at the time of seeding and 30 kg N should be applied as top dressing each after first and second cutting.

# Irrigation

Three to four irrigations are sufficient. In case of multiple cuttings, field must be irrigated after each cutting.

## Cuttings

For single cut plots, optimum time of harvesting is the fifty per cent bloom stage. For multiple cuttings, the first cutting is taken about three months after seeding and subsequent cutting at an interval of 40 days.

## Seed production

On average, about 15 quintals seed is obtained per hectare, if no cut for fodder is taken.

# Multiple choice questions

1.	The recommended seed rate for oat iskg/ha		
	a. <b>100</b>	b. 50 c. 70	1
2.	Optimum temperature for sowing of oat is		
	a. 10 – 12ºc	b. 25 – 30 <sup>0</sup> c	с. 15 – 20 <sup>0</sup> с
3.	Oat crop needs	_ climate	
	a. Warm and humid	b. Dry and hot	c. Cold and dry
4.	Optimum time of harvesting of oat is per cent bloom stage		
	a. 50	b. 70	c. 80
5.	Optimum month of sowing of oat is		
	a. Sep. – Dec.	b. May - June	c. Jan. – Feb.