IFM technique	Level of adoption	Comment
1. Rotation		
1a) Arable - A diverse winter sown rotation with at least 3 different crop types	High	High break crop prices and weed problems will encourage crop rotations to be used.
1a) Horticulture - A diverse rotation with at least 3 different crop types	High	The diversity of the rotation will depend on pest, disease and weed problems, but also on other constraints such as the quality of land and proximity to pack house etc.
1b) Include spring crops where profitable and practical	Low	Currently only 28% of the total crop area in England is spring cropped compared to 84% in 1960. Economic sustainability limits to lighter soils where higher income crops can be grown e.g. sugar beet and potatoes.
1c) Include a cover crop over winter	Low	Has too many problems associated with their inclusion in a rotation.
1d) Replace an autumn break crop with a spring break crop	Low	Depends on commodity prices, spring crop yields are often too low, weed and pest problems too great.
1e) Include legumes/fertility building crops in the rotation	High	Legume area has increased by 66% since 1984. Can help with weed control and fertility building.
1f) Provide a crop mosaic	Low	Holding size is increasing and economies of scale are encouraging block cropping.
1g) Avoid erosion prone crops e.g. potatoes on erosion prone soils e.g. sands	Low	Included in Environmental stewardship (ES) schemes, difficult to avoid as the best soils for these crops are the most erosion prone.
2. Soils		
2a) Produce a soil management plan	High	Included in ES schemes.
2b) Avoid intensive cultivations, use minimum tillage techniques (not horticulture)	High	Economy of production and larger farm size has encouraged adoption.
2c) Time cultivations carefully with respect to prevailing weather and soil conditions	High	Problems caused have too many knock on effects.
2d) Match cultivations to crop, weeds, soil type and season	Moderate	Made difficult by large holding sizes.
2e) Reduce cultivations on steep slopes, especially on headlands and near watercourses	High	Included in ES schemes.
2f) Cultivate and plant across slopes	Moderate	Adopted where practicable.
2g) Consider undersowing crops	Low	Limited to specialist areas e.g. mixed farms and organic production.
2h) Minimise harvesting passes in horticultural crops	Moderate	Adopted where practicable.
3. Water		
3a) Produce a water management plan	High	Included in ES schemes.
3b) Ensure field drainage is maintained	Moderate	Maintains productivity but possibly neglected on large holdings due to recent economic situation.
3c) Manage ponds for biodiversity	Low	Million ponds project launched Feb 2009
3d) Exclude livestock from ditches, ponds and watercourses	Moderate	May be limited by poor returns on livestock farms.
3e) Undertake an irrigation water use assessment	High	Driven by profitability as irrigation is costly and use has to be optimised on crops.
3f) Avoid irrigating before it rains	Moderate	Limited by size of holding and mobility of equipment.
3g) Apply sufficient irrigation at critical timings	Moderate	Limited by size of holding.
4. Establishment		
Variety		
4a) Grow resistant varieties wherever possible	Moderate	Limited by availability, disease threat and variety spread on farm.
4b) Exploit the characteristics of competitive and vigorous varieties	Low	Limited information available.
Sowing date		
4c) Optimise sowing date	Moderate	Limited by size of holding and weather.
4d) Sow spring crops when seedbeds are suitable	High	Ensures success especially in horticulture.
Seed rate		
4e) Consider reducing seed rates	High	Good research background for arable, cost saving.
4f) Consider increasing seed rate in some circumstances	Moderate	Limited opportunity.
5. Nutrition		
5a) Have a nutrient management plan	High	Part of ES.
5b) Buy good quality fertiliser	Moderate	Limited by cost and availability.
5c) Calibrate fertiliser spreader	High	Good practice.
5d) Predict crop needs (i.e. decision support systems or canopy management or sensing)	High at the basic level e.g. RB209 Low at the highly technical scale	Limited by economies of scale, training in techniques.
5e) Adjust the timing and amounts of split applications as accurately as possible	Moderate	Limited by size of holding.
5f) Avoid fertiliser application to field boundaries	Moderate	Depends on 5a and 5b.
5g) Consider using starter fertiliser (horticulture)	Moderate	Limited to specialist horticultural crops and potatoes.
5h) Apply manures and composts to increase organic matter	High	But limited to area where available, usually for nutrients.
6. Crop protection - General		
6a) Have a crop protection management plan	High	Part of ES.
6b) Ensure all operators trained to appropriate level	High	Part of ES.
6c) Calibrate sprayers	High	Part of ES.
7. Weeds		
7a) Plan rotational strategy to take weed control into account	Moderate	Depends on weeds present. High in grass weed areas.
7b) Use cultural control for weeds where appropriate	Moderate	Used in field vegetables in organic systems and where herbicide availability restricted.
7c) Leave residual levels of non- aggressive weeds in crops where possible	Low	Growers dislike dirty fields.
7d) Establish conservation headlands	Low	Low take up in ES schemes.

7e) Alter drilling date	Low	Limited by size of holding and risk.
8. Pests		
8a) Plan rotation and spatial separation to minimise pest problems	Low arable, moderate horticulture	Access to suitable land is a constraint?
8b) Use cultivations to control pests (e.g. slugs)	Low	
8c) Use pest resistant varieties	Low arable, moderate horticulture	Arable and horticulture - few varieties available.
8d) Identify crops at risk by forecasting, sampling, monitoring or trapping and using thresholds	Moderate	Increasing number of methods available due to research.
8e) Use narrow spectrum PPPs	Low	Limited number available, usually insecticides.
8f) Encourage beneficial enemies e.g. field margins, conservation headlands and set-aside	Moderate	Due to inclusion in ES.
8g) Use physical barriers e.g. fleece (horticulture)	High	In certain high value crops in horticulture, expensive.
8h) Alter drilling or harvesting date	Low	Due to other pressures – yield, production dates.
8i) Trap cropping	Low	Limited positive research.
9. Diseases		
9a) Plan rotation and spatial separation to minimise disease problems	Moderate	In arable situations.
9b) Use disease resistant varieties	Moderate	Yield and market is more important.
9c) Identify crops at risk by forecasting, sampling, monitoring or trapping and using thresholds	Low	Increasing number of methods available due to research.
9d) Use appropriate dose techniques	High	Backed by extensive research and saves growers money.
9e) Avoid early sown or out of season crops	Moderate	Market driven.
9f) Maintain good intercrop hygiene e.g. Residues	Moderate	
10. Environment		
10a) Increase and improve biodiversity areas (field margins, conservation headlands)	Moderate	Part of ES.
10b) Maximise the benefits of set- aside/fallow	Moderate	Was high but now low as zero set-aside.